

THE IMPLEMENTATION OF URBAN PLANS

THE CASE OF MEDINA MASTER DIRECTIVE PLAN, SAUDI ARABIA

HASSAN ABDOUFATTAH KARI

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Department of Town and Regional Planning,
Faculty of Architecture Studies
University of Sheffield
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SUMMARY

Many urban plans were made, but rarely implemented. This study aimed to understand the mechanisms of the urban plan implementation. The Master Directive Plan (MDP) in Medina, Saudi Arabia was the target of the study, as a case in the Saudi context. It is argued currently that the physical outcome may be influenced considerably by the land market, when the governmental intervention, to facilitate urban plans implementation, is ineffective, particularly, in utilizing positive power (public agencies project) and negative power (control system). The present research was guided conceptually in conducting the field work by this argument, but leaving chance to adopt any ground emerged hypotheses from the fieldwork. The research qualitatively was conducted using case study approach.

Three main proposals of the MDP's were chosen as case studies representing the macro level of analysis. The phasing programme, land use structure and, road network. Some specific programmes and projects were analyzed as a micro level of analysis, such as Western Harrah Action Area, Medina public park, Manakha tunnel, and Medina main entrances.

The study concluded that although the MDP was effectuated to some extent, the actual physical outcomes in Medina considerably were different from what was envisaged by the MDP. The argument of the study about the mechanisms that influenced the implementation process of the MDP was presented through inductively developed model, which involved a confirmed claim by the situation in Medina, that the actual outcomes influenced dominantly by the land market behavior and the reactive response of the urban planning machineries centrally and locally to it. In addition to the ineffective management of the urban planning process which was influenced by the involvement of different actors either from the central or local level of the governmental agencies, and the private sector.

A primary improvements are recommended for the urban planning practice in Medina. In addition further research fields related are highlighted.

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CONTENTS

SUMMARY.....	I
ACKNOWLEDGEMENTS.....	II
TABLE OF CONTENTS.....	III
LIST OF FIGURES.....	VII
LIST OF TABLES.....	XI
GLOSSARY.....	XII
INTRODUCTION.....	XV

PART ONE: BACKGROUND

CHAPTER ONE : THEORETICAL FOUNDATION OF URBAN PLANS IMPLEMENTATION

1.1 Related literature	3
1.2 conceptualization	4
1.2.1 Implementation concept	4
1.2.2 Factors influence implementation	9
1.2.3 Effectiveness or success and failure in implementation.....	14
1.2.4 Urban plan.....	16
1.2.5 Implementation of urban plan.....	20

CHAPTER TWO : URBAN AND REGIONAL PLANNING MACHINERY AND CONCEPT OF URBAN PLANS IN SAUDI ARABIA

2.1 The bureaucracy in the local level	26
2.2 Evolution of urban and regional planning machinery	34
2.3 The concept of urban plans in Saudi Arabia	38
2.4 the recent planning machinery in Saudi Arabia	47

CHAPTER THREE : URBAN PLANNING CONTEXT AND PLANS IN MEDINA

3.1 Medina	50
3.2 Urban planning administrative context in Medina	50
3.2.1 The urban planning machinery in Medina	52
3.2.2 Planning and building permit system	56
3.3 Urban land development policies and regulation context	60
3.3.1 Public land ownership, management and policy	62
3.3.2 Real Estate development fund (REDF)	63

3.4	Urban plans in Medina	63
3.4.1	The Matthew's Master Plan	64
3.4.2	GACDAR's Master Plan	70
3.4.2.1	Form and content of the MDP	71
3.4.2.2	The Master Directive Plan	71
3.4.2.3	Execution Plan (EP)	79
3.4.2.4	Action Area Plans (AAP): Short term	80
3.4.2.5	Cultural Area Plans (CAP)	81
3.4.2.6	The MDP making process	84
3.4.2.7	Implementation process prescribed by the MAMP	89

Conclusion.....	100
-----------------	-----

PART TWO : EMPIRICAL WORK

**CHAPTER FOUR:
METHODOLOGY**

4.1	Qualitative method	101
4.2	Case study strategy	106
4.3	The question of evaluation	108
4.4	The programme of the field research conduction	109
4.4.1	Sampling strategy	110
4.4.2	Coding and analyzing during data collection	113
4.4.3	Case study selection	114

**CHAPTER FIVE:
PHASING PROGRAMME**

5.1	Identification of the proposed phasing programme by the MDP	117
5.1.1	The urban physical expansion.....	120
5.1.2	The essential utilities	126
5.1.2.1	Water network and sewerage disposal system	133
5.1.2.2	Telephone network	139
5.1.2.3	Electricity supply network	141
5.2	The mechanism of the phasing programme implementation	144
5.2.1	Factors influencing the pattern of urban growth	145
5.2.2	Factors influenced the essential utilities recommendations	161
Conclusion	166	

**CHAPTER SIX:
IMPLEMENTATION OF THE LAND USE PLAN WAS PROPOSED BY THE MDP**

6.1	The land use structure	168
6.1.1	General land use pattern of Medina	169
6.1.2	Western Harrah Action Area(WHAA):Land use structure	167

6.2	Degree of conformity	180
6.2.1	Conformity of the existing conditions of land use structure	180
6.2.2	Conformity of land use structure in the Western Harrah Action Area	187
6.3	Mechanism of land use structure implementation	193
6.3.1	Factors influenced the implementation of the MDP land use structure	195
6.3.2	Factors influence the land use structure in Western Harrah Area.....	221
	Conclusion	231

CHAPTER SEVEN:
THE ROAD NETWORK PROPOSAL

7.1	Road network	234
7.1.1	The strategy and pattern of the road network was proposed by the MDP	234
7.1.2	Degree of conformity of the actual development with the network proposed by the MDP	237
7.1.3	Factors influencing the implementation of the proposed traffic network	242
	Conclusion	249

CHAPTER EIGHT
URBAN PROJECT IMPLEMENTATION

8.1	Medina public park (MPP)	251
8.2	Manakha tunnel	255
8.3	Medina main entrances project (MMEP)	260
8.3.1	Conformity of the MMEP with the MDP outlines	261
8.3.2	The implementation process of the MMEP	263

PART THREE : CONCLUSIONS

CHAPTER NINE:
UPWARDS CONCLUSIONS

9.1	Further notes in methodology	271
9.2	The model driven from the study	273
9.2.1	The planning process	275
9.2.2	Actors involved in the planning process	278
9.2.3	Interaction between actors	281
9.2.4	The context	283
9.2.5	The feedback influence of the produced physical outcomes	285
9.3	The macro and micro concept in studying urban plans implementation	285

CHAPTER TEN
RECOMMENDATIONS AND FURTHER NEEDED RESEARCH

10.1 Recommendations for urban planning practice in Medina292

10.2 Further needed research299

BIBLIOGRAPHY.....303

APPENDICES.....314

LIST OF FIGURES

Figure 1.1 : The sequential model of implementation7

Figure 1.2 : The bottom-up continuous model of implementation ..7

Figure 1.3 : Van Meter and Van Horn analytical framework
of implementation11

Figure 1.4 : Mazmanian and sabatier analytical framework
of implementation11

Figure 1.5 : Synthetical analytical framework of
implementation13

Figure 1.6 : The continuous process model of planning24

Figure 1.7 : Implementation process within the continuous
process of planning24

Figure 1.8 : The policy-programme-implementation process
viewed by the Alexander24

Figure 2.1 : The regional administrative division in Saudi
Arabia (the current existing condition)28

Figure 2.2 : The relationship between central and local
government regarding vertical hierarchy33

Figure 2.3 : The relationship between the central and local
government regarding the degree of power and
authority33

Figure 2.4 : Orgnization structure of the Ministry Of
Municipals and Rural Affairs37

Figure 2.5 : Classification and distribution of the
municipalities in Saudi Arabia39

Figure 2.6 : Regions and centers covered by regional and
master plans during 1973-7541

Figure 2.7 : The planning systems in the Saudi bureaucracy48

Figure 3.1 : Medina region51

Figure 3.2 : Administrative structure of Medina
Municipality (Ammana).....55

Figure 3.3.: Jurisdictions of the recent sub-municipalities
in Medina(notice:their number were reduced from
nine to six)57

Figure 3.4 : The permit system59

Figure 3.5 : The planning process concept proposed to be
practised by Matthew59

Figure 3.6 :	National income growth	66
Figure 3.7 :	Population growth in some Saudi cities	69
Figure 3.8 :	The bases of the MDP guidelines & recommendations	72
Figure 3.9 :	The conceptual base fore the content of the MDP ..	74
Figure 3.10 :	Strategical alternatives for Medina urban development	75
Figure 3.11 :	Location of the action areas.....	82
Figure 3.12 :	Cultural sites within and outside of the first ring road	83
Figure 3.13 :	Organization during the consultant period	85
Figure 3.14 :	Circle of technical approval of the MDP components during the plan making process	85
Figure 3.15 :	The performance of plans making work programme ...	87
Figure 3.16 :	The recommended administrative structure for Medina Municipality, by the MDP	97
Figure 3.17 :	Analytical model for the field work	102
Figure 4.1 :	The case study process	107
Figure 4.2 :	The ongoing process of research activities	111
Figure 4.3 :	The recurring process in the interviewing technique	111
Figure 5.1 :	The proposed phasing of development by the MDP ...	118
Figure 5.2 :	Actual urban growth pattern comparing with phasing of urban growth proposed by the MDP	122
Figure 5.3 :	Land subdivision activities until 1990 comparing with phasing programme proposed by the MDP.....	123
Figure 5.4 :	A comparison between landsubdivision plots supplied before and during the MDP planning process	125
Figure 5.5 :	Another part of the inner and center of the city which fall within the intermediate Ring Road	127
Figure 5.6 :	Area within the intermediate Ring Road and the central area : land pocketinside the city	129
Figure 5.7 :	Area along sayed shohada' road : land pocket inside the intermediate Ring Road	129
Figure 5.8 :	Sprawling development within the suburban	

	area : Azhari & Naseem land subdivision	130
Figure 5.9 :	Area along Khalid ibn Waleed road and its extension : Tabuk road (Sprawling development and growth)	131
Figure 5.10 :	Area along Sultannah road (Sprawling development in addition to vacant land)	131
Figure 5.11 :	Actual development of water supply network compared with the proposed phasing programme by MDP	135
Figure 5.12 :	Land subdivisions serviced by water supply network	136
Figure 5.13 :	Actual development of the sewerage network compare to the MDP's phasing program proposed	138
Figure 5.14 :	Actual development of telephone network compare with the proposed phasing programme for development by the MDP	140
Figure 5.15 :	The actual development of the electricity network compared with the proposed phasing of development by the MDP	143
Figure 5.16 :	Demand for building permit	147
Figure 5.17 :	Sources of land subdivision during 1974-1990.....	148
Figure 5.18 :	Sources of subdivision projects until 1990	151
Figure 5.19 :	Land price in Medina	152
Figure 5.20 :	Total landsubdivision plots supplied into land market	153
Figure 5.21 :	Locations of the squatter and unauthorized development	158
Figure 5.22 :	The new phasing programme for development in Medina	160
Figure 5.23 :	Azeeziah land subdivision 75% of it has already developed	164
Figure 5.24 :	The relationship between degree of development in land subdivision and utilities supply	165
Figure 6.1 :	The pattern of land use allocation proposed by MDP	171
Figure 6.2 :	The pattern of land use allocation proposed by MDP in the WHAA	174

Figure 6.3 :	Specific location and size of different land uses proposed by the MDP in the south western part of the WHAA	175
Figure 6.4 :	Location of the WHAA	178
Figure 6.5 :	Strategies of WHAA development	179
Figure 6.6 :	The pattern of the existing land use in Medina in 1990	181
Figure 6.7 :	A prospective view of the central area and the adjacent areas. The dominant of high-rise building clearly could be noticed	185
Figure 6.8 :	Existing land use structure in Western Harrah area	188
Figure 6.9 :	The existing structure of land uses in zone C within the western harrah area	189
Figure 6.10:	The view of the squatter development of building in the western harrah area	191
Figure 6.11:	General hypothetical relation ship between the land use structure, the MDP and possible factor influencing the effectiveness of the Plan	194
Figure 6.12:	Constraints and determinants of proposed land structure by the MDP	197
Figure 6.13:	Population forecast by the MDP	200
Figure 6.14:	Building hights until 1989	202
Figure 6.15:	The Master Plan for the water network construction	212
Figure 6.16:	Time span of the specific projects' implementation process	216
Figure 6.17:	Structure of annual expenditure in central and local level	219
Figure 6.18:	History of urban development and growth in the western harrah area	223
Figure 6.19:	The major roads existed in 1978, and the land-subdivisions were approved	226
Figure 6.20:	The selected locations needed replanning	229
Figure 6.21:	The land and buildings proposed and needed to be expropriated and demolished to implement the proposed development by Sumait Consultant in 1985	230

Figure.7.1 :	A comparison between the existed pattern traffic network in 1978 and the proposed one by the MDP ..	235
Figure 7.2 :	The proposed traffic network by the MDP	238
Figure 7.3 :	The actual network of roads (existing condition in 1990)	239
Figure 7.4 :	A comparison between the traffic network patterns within the central area in the proposed plan by the MDP, and the existed one in 1990 ,and the the proposed plan by Ibn Laden Corporation in 1990.....	241
Figure 7.5 :	The plan of mosque's enlargement and the development of areas around it,proposed by the Presidency Two Holy Mosques Affairs	247
Figure 8.1 :	The problem of site change in Medina Public Park Project	252
Figure 8.2 :	The process of Manakha Tunnel development and implementation	257
Figure 8.3 :	Medina Main Entrances Project	262
Figure 9.1 :	The concluded model	274
Figure 9.2 :	The relationship between the macro and micro level of analysis in studying urban plan implementation	287
Figure 10.1:	The recommended structure for communication and coordination process in Medina planning system ...	298

LIST OF TABLES

Table 3.1 :	Differences between what planned and the actual state of Plan making programme	88
Table 5.1 :	Landsubdivision plots supply before and during the MDP planning process	125
Table 5.2 :	Land subdivision plots supply during and after the MDP making process	154
Table 5.3 :	Sources of land subdivision plots supply during the MDP making process(1979-1983)	154
Table 5.4 :	Sources of land subdivision plots supply after	

GLOSSARY

Amanah The highest level in the municipalities' administrative classification and hierarchy. Medina municipality is of this level. However, for the purpose of the present study; amanah and municipality will be used interchangeably.

Amarah Regional administration, which is mainly responsible for general supervision over administrative legal matters within the region.

Ameen The top manager of the amanah type of municipality (the mayor).

Amir The governor of the region who is the head of amarah.

BDP Building Permit Department, which is a subdepartment in the general planning directorate.

BPAP Building Permit acquiring procedures.

DMCP Deputy ministry of municipal and rural affairs, for city planning.

DMMA Deputy Municipality for technical affairs.

GACDAR The group of Arab Consultant for Development and Reconstruction. GACDAR was commissioned as a planning consultant to the municipality of Medina during 1977-1982, during which GACDAR revised the Master Plan of Medina prepared in 1971.

GPD General Planning Directorate, which is a sub-function of the deputy municipality for technical affairs.

Hajj An Arabic word which means pilgrimage. Technically, it indicates to one of the five basic pillars of Islam, which are highly required to be performed by all Muslims. Hajj, in fact, is a pilgrimage to Makkah city, which is required to be done once in a lifetime.

Harrah Is an indication to certain areas in Medina, which are characterized by a distinguished topographical features. In fact, these areas were historically affected as a result of volcano explosion.

HCMP High Committee for Medina Planning.

Hijri calendar Is the Islamic calendar, which starts with the migration (hijrah) event by the Prophet Mohammed from Makkah city to Medina in 622 A.C. The months of this calendar are as follows: Muharam, Saffar, Rabi' awal, Rabi' thani, Jumad awal, Jumad thani, Rajab, Sh'aban, Ramadan, Shawall, Dhul qud'ah, dhul hijjah

Ihya One of the Islamic terms that concern with landownership patterns and process. This term, in fact,

Jeddah In some atlases this city used to be written as Jiddah.

LPD Local planning Department, which is a sub-department in the general planning directorate of the municipality.

LPAP Land-subdivision permit acquiring procedures.

MAMP Madina Action Master Plans.

MCMD Ministerial Committee for Medina Development.

MDP Master Directive Plan.

Mecca In some atlases this city used to be written as Makkah.

Medina In some atlases this city used to be written as Al-Madina.

MMRA Ministry of Municipal and Rural Affairs.

MMEP Medina Main Entrances Project.

MPP Medina Public Park.

MT Manakha Tunnel.

Mulk land One of the land ownership pattern in Saudi Arabia. It is an Arabic word which indicates technically to the private land ownership. The other patterns consist of waqf land, and public or governmental land.

Protected public land All lands within the Saudi Arabian boundaries, which is not mulk or waqf.

Qura'n The holy book of Islam. It is furthermore the first source for the Islamic knowledge.

REDF Real Estate Development Fund.

Sharia' Laws, regulative instructions and teachings which are formulated and structured basing on the interpretation of the texts in Qura'n and Sunna.

Sunnah The second main source for the Islamic knowledge.

Umra' An optional visit to Makkah city for religious purposes which is recommended to be done by Muslims from all over the world whenever they afford to do so.

Waqf Charitable endowment of properties. Waqf is a traditional institution of tenure, which aims to stop the transition of ownership and use of waqf properties. Waqf is usually administered by individuals appointed by the court. The court supervises waqf administration and no change of use or ownership can take place without the permission of the court.

WHAAP Western Harrab Action Area plan.

INTRODUCTION

Managing city and urban land development by urban plans have become widely accepted convention. At the same time, the gap between what is envisaged by these plans and what actually happens has been increasingly recognized as a problem. In the developed western countries, this phenomenon has led to an evaluation and criticism of the methods of operating urban planning systems, and consequently to the development of new approaches and methods " these developing criticisms, in varying ways, have brought about both a questioning of the conventional assumption underlying urban planning and a variety of changes in its practice". (Bracken, 1981 PP.:13) In the new methods of planning, the link between plan formulation and action was highlighted. "But in the new planning, the emphasis is on tracing the possible consequences of alternative policies, only then evaluating them against the objectives in order to choose a preferred course of action..." (Hall, 1987: PP.275)

This intellectual technology, namely, the management of urban land use by formulating an integrated and comprehensive urban plan, has been and is being transferred and applied in developing societies. However, the same problem, regarding the mismatch between what is included in the plans and what actually happened, has also been observed (Conyers and Hills, 1984; Taylor and William, 1982; UN, Choguill, 1987 and Blake and Lawless, 1980). Many plans although approved have rarely been implemented. Instead, these plans have gathered dust on the shelves of the archive stores of planning offices. Does the problem have the same roots as have been identified in the western societies?

This question, indeed, demonstrates the significance of studying the questions of urban implementation, in an environment in which urban plans and planning are a transferred technology.

Furthermore, according to my experience and knowledge, the most academic and research activities in Saudi Arabia have been directed and focused upon the subject matter of planning; i.e. how should cities appear, in order to fit the cultural needs and requirements

of an Islamic society. Consequently, many plans and theoretical models regarding this matter have been developed and formulated. But very little reflection of them can be seen in the real world. Beside that, only slight concern has been given to know why these theoretical efforts regarding the suitable form for our cities did not have an influence on the actual development of the urban environment. I have been interested in this subject because I think there is still a gap between theories that fill the academic curriculum of urban planning education and what is actually happening in the real world. It is very important to study why these theories and the urban plans that stem from them did not influence the actual urban environment in the Saudi cities. What, in other words are the factors or mechanisms that influenced the urban plans implementation in Saudi Arabia ?

That is what the present study aims to contribute to. It mainly tries to understand the phenomenon of urban plans implementation, in particular within the context of Saudi Arabian urban planning experience.

Medina, which is one of the major cities in Saudi Arabia, will be the location of a case study that may shed light on the problem and prepare the ground for further research work, which may, in turn, increase the insight into and knowledge of this phenomenon within this particular context.

Within this main purpose, two specific objectives were set for the present study. The first was to assess the degree of conformity between what is envisaged by the urban plan and what actually happened. The second was to discuss what the factors were that influenced the performance was found.

Logical and Organisation of the study :

The relationship between theory and research (particular observation of a social phenomena) forms the logical base and content organization of the present study. In fact, it is based on the fact that the scientific discovery can be a continuous recurring learning

process, in which an interrelation occurs between theory, hypotheses development, data collection and generalization, as has been highlighted by Burgess(1982)"Here, we are made aware that research does not occur in stages and does not follow a linear path, but instead is a social process, in which overlap occurs between all areas of the investigation." pp.209.

It is the hypotheses development process which concerns the present study more than verification, though the study aims to confirm the problem may stated basing on the current western theories and primary insight could be obtained by reading literature and documents regarding the site and context in which the phenomenon will be observed. Furthermore, the hypotheses development process concerned here which implies hypotheses generation ,too that is guided by the conceptual framework and direct observation of the phenomenon in the field(Merton,1963;and Glaser and Strauss,1967).

Accordingly, the present study is divided into three parts. The first part is, in fact, an introductory one. It includes three chapters. The first chapter provides a background to the current state of the art of implementation. The current theories and perspectives with particular attention to the implementation phenomenon within the context of urban planning. The second and third chapters give the background to the history and contemporary urban planning experience and machinery, in addition to the concept of urban plans in Saudi Arabia. Particularly, chapter three will introduce the location of the Medina case study and describe the Master Plan for Medina. These three chapters, in addition to informing the reader with the context in which the phenomena were observed, provide a foundation to state the problem and draw the conceptual framework that was used as guidance for the field study.

The second part includes the empirical part of the study. It consists of four chapters. The first chapter clarifies the logical procedure that was adopted as the research design for the field work. Chapters five, six and seven include the three programmes that were selected from among those proposed by the Master Directive Plan (MDP) of Medina, through which the implementation phenomenon

was observed. The selected programmes (cases) were; the phasing programme, the land use structure and, the road network.

Lastly, the third part presents the fruit of the research. It comprises the conclusion of the study, which involves a first stage of model building that might provide a ground for further thorough research and investigations aiming to understand urban planning practice in Saudi Arabia in particular, and to understand the urban planning phenomena in general particularly the urban plan implementation process. This will be the content of chapter eight. Chapter nine will involve as a consequence recommendations that concern the practical implications for urban planning practice in Medina and further research that might provide more insight into the questions about the urban planning practice in Saudi Arabia.

PART ONE

BACKGROUND

The phenomenon aimed to be investigated is recently known within the academic and research context. In addition, the phenomenon is intended to be observed at and within a particular context that may have its own characteristics and consequently may have an influence upon the structure of the phenomenon under study.

Having said that, it is relevant and logical to link the present research with the previous works and the context in which the phenomenon will be observed. This part of the study aims to provide background about the current theoretical discussion regarding the phenomenon of implementation in general, and urban plans implementation in particular. In addition, it will shed a light about the Saudi urban planning system, particularly in Medina; the location of the present study, beside an identification of the MDP as an example of the urban plans concept in the Saudi urban planning experience.

The outcome intended to be obtained as a conclusion from this part is mainly to state the primary image about the problem which is the concern of the present study, and to draw the conceptual framework that will serve as a guidance for the field data collection and hypotheses development and generation. The need for this from one hand, is based on the notion of 'grounded theory' which implies an interaction between the process of generating hypotheses and theories basing on data that are collected during the fieldwork and verifying them (Glaser and Strauss, 1967). On the other hand; this mode of conducting research is most appropriate when one has a plenty of time and enough experience to perform a longitudinal observation, otherwise, the utilization of the current theoretical perspectives as a guidance for the field research becomes more suitable. This argument is in fact, supported by Miles and Huberman (1984)". when one is interested in some better understood social phenomenon within a familiar culture or sub-culture, a loose, highly inductive design is a waste of time." pp.

Furthermore; Burgess basing on Berman and Vidich (1960) presented some usefulness of the theory to the field research: "theory can be

used to provide a focus for the study; an ideal for investigation. Secondly, it can provide a series of alternatives for field research. Thirdly, theory can assist the researcher to formulate and reformulate the problem posed in the research. Fourthly, the limitations of a theory that is used in empirical work can be demonstrated with empirical evidence. Finally, they state theory can be used to discover new dimensions of the research problem and to reconstruct that problem." (Burgess, 1982: PP. 210).

CHAPTER ONE

THEORETICAL FOUNDATION OF URBAN PLANS IMPLEMENTATION PHENOMENON

The main purpose of this chapter is to review the previous studies and scientific efforts concern the implementation phenomenon; with particular emphasis upon the urban plans implementation. And then, attempt to construct concepts and identify variables relevant to the phenomenon, that is the scope of the present study.

1.1 Related literature

Generally speaking; the literature and studies concerned with implementation phenomenon are a recent phenomenon themselves. "...Pressman and Wildvasky noted how little attention had been devoted to the implementation process. Since their work appeared in 1973, literature on implementation has begun to emerge." (Alexander, 1985 p.403)

These studies have attempted to understand or explain the implementation process; and to develop an appropriate analytical framework and methodology. They mainly stemmed from the organizational and political context. And, mostly, efforts relate to the industrialized nations which, in fact sprang from their environments and were influenced by them.

These studies can be classified for the purposes of the present study into three categories. Firstly, the studies that are concerned with implementation as a phenomena observable in any government action. This category, despite the fact that orientation is organizational, it did have an impact upon the other categories. It took two directions; each has its own argument and approach which is different from the other. The first direction represented by Sabatier and Mazamania (1981), Van Meter and Van Horn (1975) and Baradach (1977). While the other involved Hjern, Hanf and Hull (1978), and Barrett and Fudge (1981) as an example.

The second category embodies studies that focused on the implementation phenomenon but within the urban planning field which

although has its own context and nature, were influenced by the previous two approaches (Faludi, 1987), Chris Minay (1979) Alexander (1975, 1979 and 1982) and Alterman (1978, 1982 and 1987). In terms of studying the implementation of urban plans, in particular, works by Dakin (1973), Alterman (1978), Alexander (1986), Johnston et al (1978) and Healey (1982 and 1983) are relevant.

The third category concerns the same as the second one but within the Third World context and experience. Choguill's (1980 and 1987), Alterman (1975), Agwis (1988) and Dawam (1988). In addition; Taylor et al (1982) is an excellent study that concerns the world urban planning experience, though it is not specifically focused on the implementation phenomena.

1.2 Conceptualization:

The key concepts relevant to our present subject are; implementation, factors influence implementation performance and effectiveness or success and failure in the implementation, urban plan and accordingly urban plan implementation.

1.2.1 Implementation Concept

In common sense, to implement means to carry out and undertake an agreement or promise, for example, into effect. As a noun, implementation involves tools or instrument for working with (Hornby, 1974).

From a terminological point of view, the concept of implementation still lacks consensus: "The lack of agreement on how to conceptualize the process of implementation probably accounts for how little we still know about it." (Alexander, 1986 p.56). Mainly there are two perspectives. One views implementation as a bottom stage of a sequential process, or a step which comes after policy making step representing the end step of the sequences. For example, Mazmanian and Sabatier (1981), one of the main representative scholars of this prospective, identified implementation as: "...the carrying out of a basic policy decision, usually made in a statute

(although also possible through important executive orders or court decisions). Ideally that decision identifies the problems to be addressed, stipulates the objective (s) to be pursued, and, in a variety of ways, structures the implementation process." p.5

They clarified this further by stating: "the implementation process normally runs through a number of stages beginning with passage of the basic statute, followed by the policy output (decisions) of the implementing agencies, the compliance of target groups with those decisions, the actual impacts - both intended and unintended - of those outputs, the perceived impacts of agency decisions and finally, important revisions (or attempted revisions) in the basic statute p.6. This perspective, which was described as a top-down approach, essentially, starts with government policy decision, then asks:

1. To what extent were the actions of implementing officials and target groups consistent with that policy decision?
2. To what extent were the objectives attained over time, i.e. to what extent were the impacts consistent with the objectives?
3. What were the principal factors affecting policy outputs and impacts both those relevant to the official policy as well as other politically significant ones?
4. How was the policy reformulated over time on the basis of experience? (Sabatier, 1986)

Figure (1.1) shows an example of the top-down approach, which considers the implementation as an end stage in an ends-means chain of decision-making process.

However, this approach has been criticized by some other scholars (Elmore,1979; Hjern and Hull,1982; Hanf,1982; and Barrett and Fudge, 1981). The main critiques are that it assumes the goals and perspectives of those at the top of an organization are the only legitimate ones, and deviations from them are considered to be dysfunctional even if they do contribute to some social good. Accordingly, the formulators of the policy were considered as the key actors and others are basically impediments. Also, this approach neglects the influence of the private sector, street level

bureaucrats or local implementing officials and other policy subsystems. In other words, it ignores the fact that implementation takes place in a multi-organizational network where official goals are vague, each actor is responsible for a number of programmes that may conflict with each other, and that they are pursuing different goals. This approach, as the critiques argued, assumes, incorrectly, the compliance of the implementers as they are agents for policy makers! So, to put the policy into effect (Barrett and Fudge, 1981; and Elmore, 1979).

On the other hand the other perspective which is known as a bottom-up approach, emerged claiming that those at the street level are more familiar with the problems encountered in program implementation, and they should have a considerable role in policy making.

This approach, in fact, views the implementation process as an interactive process of negotiation or bargaining between policy makers and implementing agencies. In other words, implementation here is a process of political interaction between different actors who have different interests and priorities and involve in the action, aiming to reach an agreement. ".it is appropriate to consider implementation as a policy/action continues in which an interactive and negotiating process is taking place over time, between those seeking to put policy into effect and those upon whom action depends" (Barrett and Fudge 1981, p.25).

As can be seen in figure (1.2), the implementation included in the action is a component of a continuous process which takes into account the reaction of the different actors within the context in different levels specially on the ground or at the wide. Which implicitly rejects the sequential model of decision making process, specially in terms of policy formulation. "Policy formulation process in this perspective may be a response to pressure and problems experienced on the ground". Barrett and Fudge (1981) emphasized on the role of the actors in the street level: "But in many instances, especially in the public policy field - those

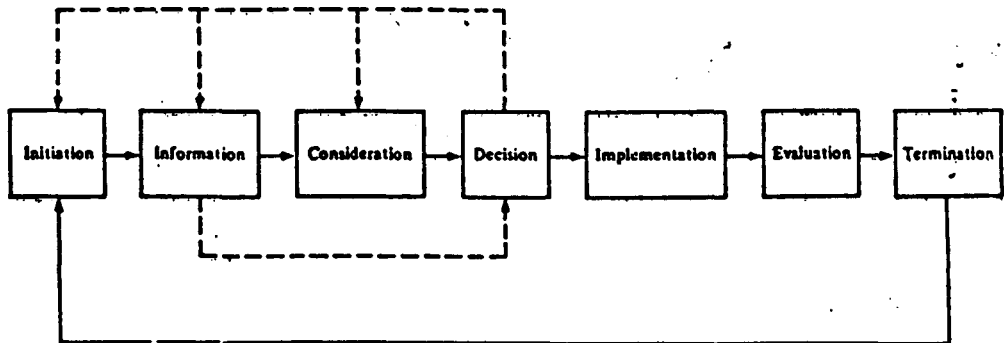


Figure 1.1 : The sequential model of implementation
 (source: Healey, 1978)

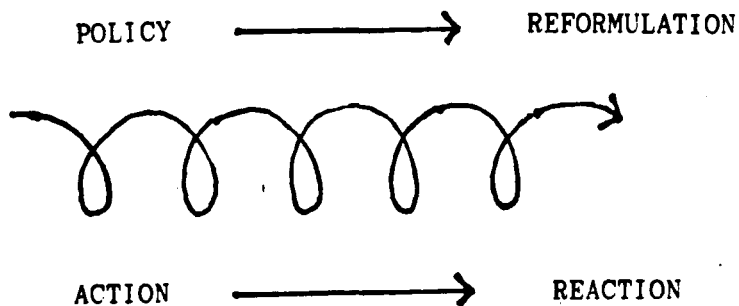


Figure 1.2 : The bottom-up continuous model of implementation
 (source: Barrett and Fudge, 1981)

upon whom action depends are not in any hierarchical association with those making policy." p.12

So, contrary to the top-down approach, the bottom-up approach starts with street level bureaucrats (the bottom). It identifies the actors' network involved or potential to involve in the implementation process of particular service or program, in one or more local areas, and asks them about their goals, strategies, activities and contacts. Then it uses the contacts as a vehicle for developing a network technique to identify the local and regional and national actors involved in the planning, financing and execution of the relevant government and non-governmental programs. (Sabatier, 1986).

However, this approach has its share of criticisms, too. These state that the street level bureaucrats can also be wrong to reformulate the policy accordingly. Also, the bottom-up approach over emphasized the ability of the local agencies to frustrate the center without consideration of the prior effects and laws that enable them to act as they do in addition to the ignorance or inability to consider the factors indirectly affect the local actors (Sabatier, 1986).

But to avoid the confusion in the attempts to analyze the implementation process; Sabatier (1986) suggested some bases for the starting point and developed a synthetical model of the two approaches. In regard to the bases for research starting point, he highlighted the dominant nature of the policy saying "where a single public agency clearly dominated the field ,the top-down approach is appropriate" pp. as well as if the researcher is more concerned with mean policy outputs and outcomes. If there is no dominant agency and policy and there are various actors and parties which necessarily involved in the process, in addition to the interest of the researcher in the network of actors then the bottom-up approach is more suitable. However, the synthesis between the two approaches is probably more appropriate in some cases where the situation is moderate. This approach is a recent development and examples include work by such as Knoepfel and Weidner, (1982) and, Elmore, (1985). It adopts the advantages of the two previous approaches.

1.2.2 Factors Influence Implementation:

Most of the theoretical and analytical frameworks developments concern the factors affecting the effectiveness of the implementation process were performed by the supporter of the top-down approach such as Van Meter and Van Horn (1975), Bardach (1977) and Mazmanian and Sabatier (1981).

In fact, the model is shown in figure (1.3) clarifies the different variables adopted by Van Meter and Van Horn to link policy and performance. The first variable is 'standards and objectives'. That involves the degree of preciseness or vagueness and harmony or contradiction, in the content and statement of the policy's goals and specific objectives influence the performance of the implementation. The second variable is 'policy resources' which may involve funds or other incentives in the program that might encourage or facilitate effective implementation. The third variable is 'interorganizational communication and enforcement activities'. It means that the realization and understanding are from one of the policy's standards and objectives, from one side ,and the consistency of the activities with the policy's standards and objectives by the actors involved in the implementation, is crucial in the successful performance. The fourth, is The characteristic of implementing agencies. Van Meter and Van Horn listed some characteristics that have potential to influence the implementation performance:

- "a) the competence and size of an agency's staff;
- b) the degree of hierarchical control of subunit decision and processes within the implementing agencies.
- c) an agency's political resources (e.g. support among legislators and executives.
- d) the vitality of an organization.
- e) the degree of open communication within an organization.
- f) the agency's formal and informal linkages with the policy making or policy enforcing body." pp.471

The fifth variable is "Economic social, and Political Conditions" as an external contextual factors probably influence directly or indirectly the performance. The sixth is "The Disposition of Implementation" which involves the degree of perceptions and understanding of the policy's interactions, response direction (acceptance, neutrality or rejection) and intensity of that response of implementation.

In a similar approach, Eugene Baradach (1977) proposed another framework based on the view that the implementation process is a series of games involving the efforts of numerous autonomous and semi-autonomous actors to protect their interests and gain access to policy elements. All involved in the process within a context of uncertainty which include an attempt to obstruct the legal mandate. Consequently Baradach identified some elements within the implementation process these include "(a) administrative and financial accountability mechanisms; (b) willing participation of presumptive beneficiaries and clients; (c) private providers of goods and services; (d) professional services workers, developers, land holders; (e) clearance or permits by public regulatory agencies or elected officials; (f) innovations in the realm of program conception and design; (g) sources of funds; (h) trouble shooters who irons out difficulties and assist in co-ordinating the more routine activities of assembly process; (i) and political support that sustains and protects the assembly process" pp.51-7 (Baradach, 1977).

Mazamanian and Sabatier, (1981) developed another framework based on the previous efforts: "Despite the limitations of these efforts at conceptualization each has made important first steps to our understanding of policy implementation." (Sabatier and Mazamanian, 1981 pp.5). Their framework included three broad categories of variables: (1) tractability of the problem (s) being addressed by the statute; (2) the ability of the statute to favorably structure the implementation process; and (3) the net effect of a variety of political variables on the balance of support for statutory objectives. Figure (1.4), above, shows the 'skeletal' form of the

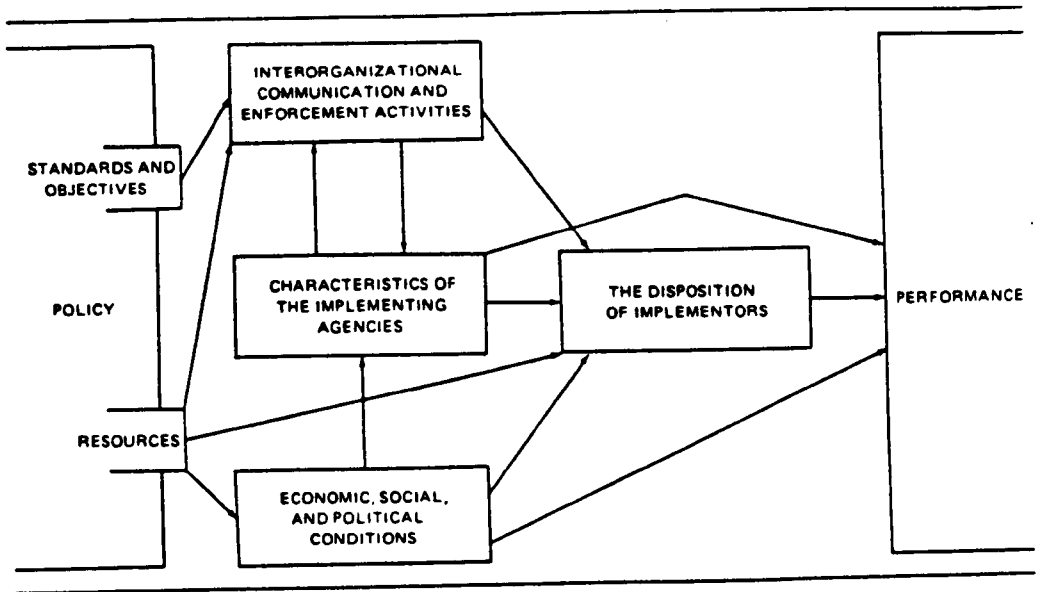


Figure 1.3 : Van Meter and Van Horn analytical framework of implementation (source: Van Meter and Van Horn, 1975)

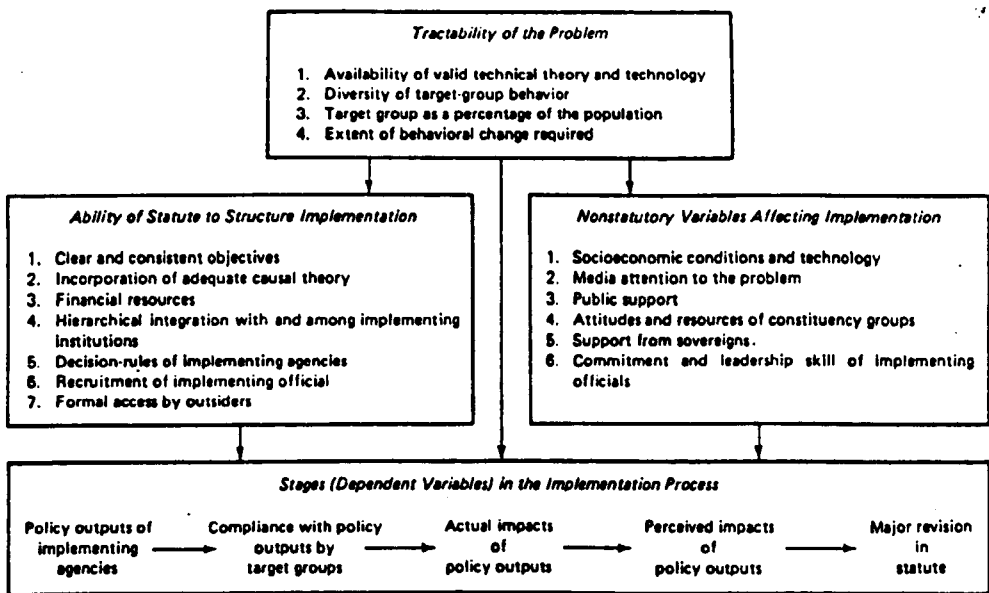


Figure 1.4 : Mazmanian and Sabatier analytical framework of implementation (source: Mazmanian and Sabatier, 1981)

proposed framework. The first category of variable concerns the inherent nature of the problems to be dealt by the governmental policy or program. The second category involves the establishment of the legal base and structure in which the implementation politics take place. The third category focuses on the non legal variables affecting the policy outputs of implementing agencies such as target group compliance with those decisions and ultimately the achievement of statutory objectives. Moreover, the framework contains in addition to the above categories of independent variables, dependent variables which involve the policy outputs (decisions) of the implementing agencies; the compliance of target groups with those decisions; the actual impacts of agency decision; the perceived impacts of those decisions and the political system's evaluation of statute in terms of major revisions in its content.

In an attempt to create a synthesis, Sabatier (1986) proposed yet another framework, as a result of reviewing the bottom uppers' criticisms, in which he adopted the advantageous elements of both approaches (i.e. top-down and bottom-up approaches). Figure (1.5) manifests the new framework. It is composed of two components regarding the top-down and bottom-up concepts. Firstly, the top-down oriented variables which involve two sets of exogenous variables. They are assumed to have an influence upon the constraints and resources of sub systems actors. The first set contains the stable parameters relevant to the problem, while the second set contains dynamic factors such as changes in socio-economic conditions. Secondly, the bottom-up oriented variables which represented by policy sub system assuming that actors may establish conditions of politicians, agency officials, interest group leaders and intellectuals; influence the central government in changing their policies either in content or in process. Also, the policy sub systems assumes a third group who aims to obstacle the policy. Those groups coalition and brokers will influence the performance of government action programme at the collective choice level, which in turn produces output at the operational level.

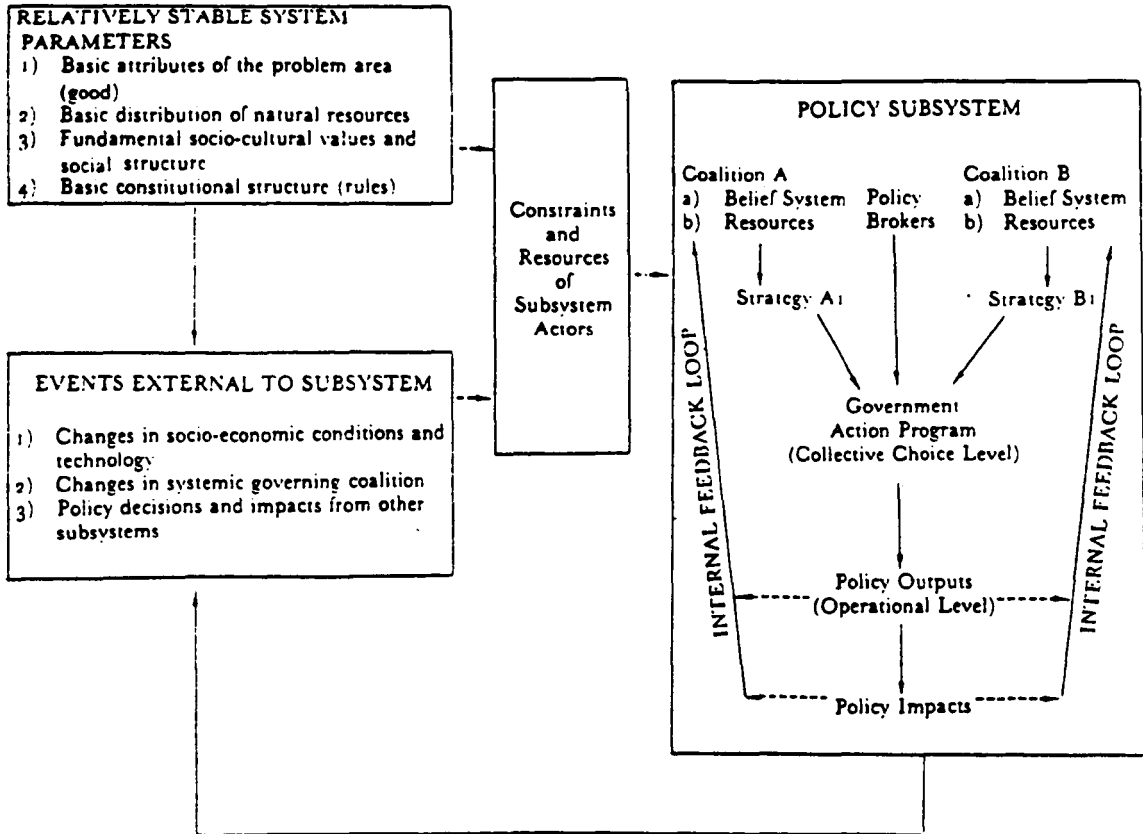


Figure 1.5 : Synthetical analytical framework of implementation
 (source: Sabatier, 1986)

1.2.3 Effectiveness or Success and Failure in Implementation

Within the above discussion, the top-down approach considers that goal achievement is the base for assisting the effectiveness of the policy implementation. For example, Mazamanian and Sabatier (1981) stated "if one is concerned only with the extent to which actual impacts conform to statutory objectives, then only the first three stages are pertinent. In our view, however, one should also consider the political system's summary evaluation of statute, which necessarily involves the latter two stages as well." p.21 This concept actually stemmed from the organizational orientations of measuring and assisting the effectiveness. "Outputs and goal accomplishment are probably the most widely used criteria of effectiveness." (Cameron,1978 p.605).

But, on the contrary, some other scholars, particularly, from the bottom-uppers argued that this method of defining effectiveness was unreasonable. In particular, within a context of different political interests and identities. Barrett and Fudge (1981) claimed "this perspective also necessitates changing the way in which implementation success and failure is viewed: if policy is modified as a result of inter-or intra-agency negotiation, then can conformance or compliance be judged? What may appear to be failure in the policy makers terms may be regarded as success by the implementing agencies." p.25-26. But this will not assist in finding a test for the effectiveness or success and failure of implementation, and merely adds to the degree of confusion. Alterman (1981), who views the implementation process as the process by which decisions taken by various actors enhance or weaken the chances that intervention will be undertaken in accordance with the policy of reference. stated, in term of solving the vagueness in conceptualizing the effectiveness, "To talk about an implementation process usefully, one must state what is the policy of reference and what are the persons, groups or agencies of reference from whose point of view implementation is described and assessed." p.229.

According to the research concerned with organizational aspects and programme evaluation there are some approaches to assist the success

and failure but based on the same notion mentioned by Alterman's "policy-of-reference." One approach involves evaluation of policy performance by determining if there were real changes in specified target populations or conditions as a result of the programmatic intervention. Another approach concerned with the process of implementation rather than the end-state, i.e. the way the organizations responsible of implementation exploit its environment in the acquisition of scarce and valued resources to sustain its functioning (Hall,1980 and Cameron, 1978).

Within the context of urban planning, this issue has been addressed in the same manner generally. Choguill (1987) for example, stated that "The implementation of a planning project tends towards failure if it:

- i. fails to achieve the realistic objectives of the planners because of the way it was carried out;
- ii. leads to unexpected costs above and beyond an original reasonable allocation of resources (such as unexpected losses to national income, unexpected resources use or maintenance costs." p.149-50.

Alterman (1978) representing her concept of policy-of-reference, evaluated the implementation of Krayot town's urban land use plan using two major set of decisions; the detail plan as a local agencies comparing with the specification of the outline plan; and terms of building permits comparing with specifications of the relevant detail plan (Alterman,1978). While Mandelker (1971) measures the effect of a comprehensive plan through review of zoning decisions. Alternatively, Johnston (1978) examines the degree of implementation of Sacramento county by comparing the growth phasing program proposed with what actually appeared. This direction or approach is identified by Alexander (1983) as "it involves a comparison between the norms stated in the plan and the output over a particular period." p.109

However it is important here to note that the implementation and its effectiveness (success or failure) concept stem from the context and nature of public policy itself. Miney (1979) raised this issue "in putting this classification of planning I do so only as a means of drawing attention to the fact that the term 'implementation' in planning can mean many different things." p.53 Similarly, Alterman (1982) criticized the implementation literature with few exceptions and ignored this problem accordingly implementation in regard to different modes of planning. Her classification included control (regulative) planning, initiatory planning, policy planning, transactive planning and advocacy planning, radical planning and finally utopian planning.

The most relevant classification here, for the present study is the "control (regulative) planning" or what Miney classified as 'planning as a response to private action'. He stated "the most obvious example of this type of planning to most readers of this paper will no doubt be the development control process under the Town and County Planning Acts." (Miney, 1979, p.44) Altermann (1982) accordingly viewed the implementation process within this type of planning as "a process of compliance by both government agencies under authority, and by private individuals. The agency must establish a mechanism of enforcement. Breach of compliance entails sanctions and penalties". p.237-38.

Given this base, we need to look further at the concept of the plan within urban and regional planning in addition to the implementation process concept of the urban plan. "Policies and Plans may be distinguishable from one another by their respective scope and range, and their relative degrees of abstraction or concreteness and specificity". (Alexander and Faludi,1989, p.132).

1.2.4 Urban Plan

Originally, the master plan was the principle element in the town planning. The master plan in the U.S.A. and Britain in particular as leading countries was a response to urban problems during the depression and between wars. In fact, in the U.S.A., experience with

master plans began in the 1928 standard city planning enabling Act (Kent,1964) which was widely adopted by cities throughout the United States. Whilst, in Britain, the general concept of the Master Plan was practiced during the period between 1947 and the middle of the 1960's." It is true that under 1947 planning Act in Britain, deliberate provision was made for review of the plans every five years. But the philosophy behind the process was heavily orientated towards the concept of the fixed master plan" (Hall,1982 p.275).

This type of plan has been greatly criticized by many scholars, as an urban design tradition, too rigid, land use based (Stewart,1972;Healey,1982, Hansen, 1988 and Branch,1974).

Consequently, and as a result of the theoretical contribution in urban planning field, new dimensions and developments were added to the concept of urban plan. The comprehensive plan appeared in the United States as an alternative to the Master Plan in the 701 program of Housing Act of 1954, which required local governments to prepare comprehensive plans to be eligible for federal grants and programs. (Alexander 1986) In the same way, the Structure plans were introduced in Britain with the 1968 Act itself a product of the Planning Advisory Group review. (McLoughlin, 1973) Both the American comprehensive plan and the British structure plan were regional in scope, whether the metropolitan region such as in the United States or the county or major town regions in Britain.

So, what is urban plan, in terms of content and form? As we concluded above, the Master Plan which is "a single document that present a tidy blueprint for the sometime future" (Robinson,1972) has come to be seen as an invalid concept for contemporary western urban planning practice. It was replaced by new terms, contents and forms. In contemporary town planning literature, particularly, American urban plans are labelled by various names which are used interchangeably, for example, 'city plan', 'comprehensive plan' and 'General Plan'. Furthermore, some literature uses other phrases such

as 'physical development plan', 'master plan' or 'metropolitan plan' to convey the same concept¹ .

However, the concept, which is same in all, is the principal concern here. Kent defined the 'general plan' as "the official statement of a municipal legislative body which sets forth its major policies concerning desirable future physical development; the published general-plan document must include a single, unified general physical design for the community, and it must attempt to clarify the relationship between physical-development policies and social and economic goals" (Kent, 1962, pp.18).

Alan Black (1968) identified why the plan of this type is described interchangeably as 'comprehensive', 'general' and 'long range'. Comprehensive because it covers all geographical parts of the community and all functional elements that are involved in the physical development. While 'general' involve general statements of policies and proposals without specification of the locations and detailed regulations, and 'long range' means that the plan include outlines for a time spanned along 20-30 years in the future. Technically, the comprehensive plan, in the United States commonly includes: background information (about the population and its future growth, economy, existing land use, assumptions and community goals); community facilities including services and utilities and some times include special use of land unique to locality. It also involves transportation outlines.

Furthermore, the comprehensive plan in the United States may involve other documents which are mostly considered in the town planning literature as an alternative tool to effectuate the comprehensive plan. For example, zoning ordinances, official maps, sub division regulations and a "middle-range development plan" which concentrates on a particular area of the city of particular functional element and specify the directions and desired development of it, according to the comprehensive plan outlines, the middle range plans is

¹ Master plan has fallen into disrespect among planners because of its misuse in the past to describe plans which were not general comprehensive such as master plan, or master park plan.

usually a short term plan in regard to time span say for example 5-10 years.

In Britain, the notion of the comprehensiveness has been utilized through the concept of structure plan which is a "primary written statement of policy accompanied by a diagrammatic structure map for counties and major towns only, designed to expose clearly the broad basic pattern of development and transport system." (McLoughlin, 1973, p.142). It was also considered as a link between national, regional and local policies. "The revised development plan system of 1968 was an attempt to recover the capacity to link detailed development to social and economic policy as evolved of regional and sub-regional level." (Healey, 1983, p.46). So, the structure plan is a written statement, "not site-specific", which outlines the strategic land use planning and policies for the area and the most important general proposals for use of land, including measures for the management of traffic and the improvement of the physical environment and must consider the whole range of related matters which may influence the future of the area as a whole. The written statement in terms of form, may include diagrams which are not map-based. In terms of functions and purpose a circular 98/74 by the Department of the Environment specified them:

- (a) "to state and justify to the public and to the Secretary of State, the authority's policies and general proposals for the development and other use of land in the area concerned (including measures for the improvement of the physical environment and the management of traffic).
- (b) to interpret national and regional policies in terms of physical and environmental planning for the area concerned (such) policies tend to be primarily economic and social.
- (c) to provide the framework and statutory basis for local plans, which then in turn provide the necessary further guidance for development control." Healey, 1983, p.50).

Urban plans in Britain accordingly include general comprehensive written plan which is the structure plan and local plans which are a specific map-based plans outlines within the structure plan framework. Local plans are of three types according to the PAG recommendations. Firstly, the district plan which link between broad strategy and detailed execution, providing broad guidelines for development control and giving a context for the most detail plans such as action area plans. Secondly, the subject plan which shows in detail the authorities' proposals on a particular issue or group of issues, e.g. mineral extraction. The action area plan which is produced for areas where substantial change is expected within 10 years, e.g. comprehensive development or redevelopment. (Bruton, 1988)

Hence, in Third World countries the concept of a master plan, as an end-state framework, is still the dominant method in urban planning practice (UN, 1973; McNeil, 1983, Findley and Paddison, 1986 and Blake and Lawless, 1980). Though some of these countries have shifted towards the short-range action plan concept and imported the comprehensive plan from the American and British experience. (Taylor and Thomas, 1982).

Accordingly there are two models for the urban plan in the third world experience: The first is the traditional master plan concept of a given urban area's physical development. "The output from this approach is a kind of a photograph of how a city's basic land use and circulation pattern may well be at some future point in time." (Taylor, 1982). The second is the 5 year action plan which, as described by Taylor, put more emphasis upon: (1) short-term period. (2) Use of the budget as investment, and deemphasis of physical (land use) planning.

1.2.5 Implementation of Urban Plan:

The context in which public policy is process influences the pattern of the implementation process. This idea was raised by some scholars in regard to study the implementation such as Miney, (1979); Alterman, (1981) and Lewis and Flynn, (1979). Perhaps more so than

other areas of policy making, urban and regional planning has always been characterized by a variety of modes of planning and by some awareness that adoption of one or other of these modes has implications for how the implementation process is conceived. (Alterman,1981). Hall, (1987) from the system approach point of view stated "fundamental to the concept of system planning as the cybernetic based planning has come to be called - is the idea of interaction between two parallel systems: the planning or controlling system itself, and the system which it seeks to control." p.276-77

Given this base, it is relevant to examine how literatures are concerned with urban and regional planning, view the implementation, particularly, the implementation of urban plan. Some of these literatures discussed the implementation within the concept of land development process and the governmental intervention to control it, particularly, the powers the government does have to intervene effectively i.e. implement the urban plan. (Healey, 1983, 1988; Bruton and Nicholson, 1987; Lichfield, 1980; Pickvance, 1982; Rudel,1989; Choguill, 1987 and McLoughlin, 1973). Healey, (1982) defined the land use planning as "governmental programmes of intervention in land values, land use and land development" p.180 accordingly she emphasized on studying the process of land development "yet the central concern of any explanation and evaluation of land use planning must be with the complex interrelationship of government activity and the development process." p.183.

Conceptually, the planning system practice the intervention, within the general outlines of the comprehensive plan through a particular legal tool. "Here the implementation process is viewed, first and foremost, as a process of compliance by both governmental agencies under authority, and private individuals. The agency must establish a mechanism of enforcement". (Alterman, 1981, pp.237). In the same line raising the importance of the land market in the development process, Pickvance (1982) stated "The question we need to examine is to what extent the existence of the system of development plans and development control leads to a different allocation of land from

'free market' or 'non planning' situation." If the allocation is very different then physical planning is a powerful force in urban development; but if the allocation is very similar then market force determine land use despite the existence of the planning system."pp.70. Within this idea and related to it, some literature in their discussion about the planning systems influence a planning process, in particular the implementation process, they defined two sets of power; positive power and negative power. The positive power which involve the control of public investment, especially in elements of infrastructure such as roads, railways, airports, schools, housing schemes and hospitals. The negative power, which is called negative as it prevents some developments to be initiated while it is positive substantially because in preventing these developments it actually directs them to the public interest. This power involves the legislative controls, regulations and programs such as building permits, zoning ordinance, sub division regulations, official maps, budgeting programme,...etc (Faludi,1973;Choguill, 1980; Pickvance,1982;and Hall, 1987;). Leung, 1983 includes two chapters, in his book "land use planning made plain", for implementation classifying the implementation into control-orientated and action-orientated. In fact, he actually indicated by 'control-orientated' to the negative power while 'action-orientated' to the positive power. In other urban planning literatures they used to list the legislative tool and government programmes under the implementation section such as Goodman and Freund, and Patterson in his book "land use planning; techniques of implementation." He stated "The traditional tools the American planner has at this disposal are for the most part inadequate for effective intervention in the land market for the purpose of carrying out land use plans." (Patterson, 1979: pp.21).

On the other hand, some literatures view the implementation process as a continuous decision making process within the planning process as a whole (Faludi, 1987; Alexander,1989; Masser, 1979; Friend and Jessop,1969; Alexander,1986; and Hall, 1987). The continuous planning process is seen as "a sequential, multistaged process in which many of the phases are linked to their predecessors by feedback loops. In other words, the conclusion reach at a later

state may lead to a review of an earlier stage or an alteration of the whole process." (Alexander,1986;pp.44). Figure (1.6) simply shows the concept of the reiteration of the planning process through a sequence of processes in feedback loop starting by decision to adopt planning, formulation, evaluation the action through public investment or control over private investment which is expected to influence the content of the plan through the process of monitoring and review of the policy and system performance to begin the process again. Stemming from this concept, McLoughlin, (1969) in figure (1.7) viewed the implementation process as one process of continuous sequential interacted processed involved surveys of the real world through comparative analysis then the control processes which are applied to the real world situation according to the previous surveys and plan formulation and so on, so forth.

To study the implementation process within this context, Masser stated "these steps can be viewed as thresholds in the overall planning and implementation processes which are accompanied by a marked increase in the degree of commitment to a particular course of action." (Masser,1982: pp.7). Alexander, (1989) made further contribution in this approach (figure 1.8) clarifies the model proposed by him, in which implementation is viewed as an action and operation in the field designed to achieve change on the ground. "Implementation decisions are a special class of operational decisions, therefore: those decisions which produce the final output of programme or a project, and which impact directly upon the client, the organizational, or physical environment. Such decisions include the application of regulations, disbursement of funds, contracting and procurement, personal actions and management, service delivery, etc." p.133.

Summary:

In sum, the concept of urban plan implementation does have different content, although the approach of studying it might be influenced by the current two approaches (i.e. the top-down and bottom-up approach). In fact, the content of urban plan implementation involves a sequence of decisions either in utilizing the negative

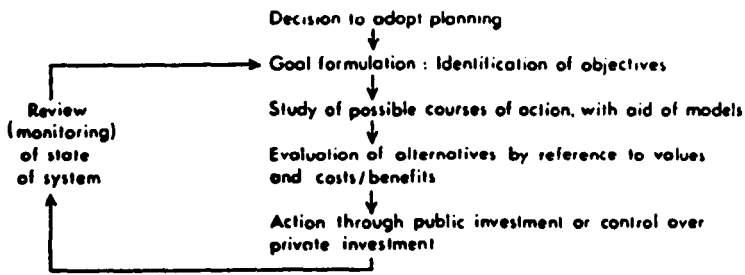


Figure 1.6 : The continuous process model of planning
(source: Hall, 1987)

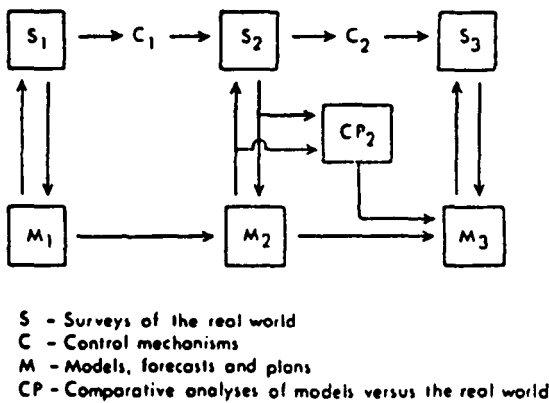


Figure 1.7 : Implementation process within the continuous process of planning
(source: McLoughlin, 1969)

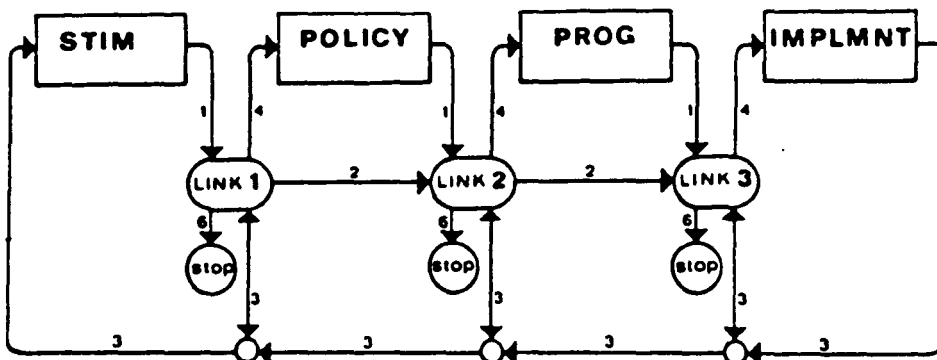


Figure 1.8 : The policy-programme-implementation process viewed by the Alexander
(source: Alexander, 1985)

power (control system) or the positive power (public projects), which may be weakened, as a state intervention to direct the land development in accordance with the urban plan, by the force of land market from one side and the efficiency of the planning system and process from other side.

CHAPTER TWO

URBAN AND REGIONAL PLANNING MACHINERY AND CONCEPT OF URBAN PLANS IN SAUDI ARABIA

The purpose of this section is to identify the Saudi local bureaucracy from which implementation phenomenon can not be separated in term of study and observation. In fact, a description of the contemporary bureaucracy in the local level and its relationship with central government will be preformed. In addition, the evolution of urban and regional planning machinery and concept of urban plans in Saudi Arabia are to be introduced.

2.1 The bureaucracy in the local level:

Historically, the form of the local government evolved within the context of the state and society's evolution as a whole. Thus, the early stage of the local bureaucracy reflected the primitiveness and highly centralized nature of the system. From one hand, the primitiveness was reflected in the regional level through the continuous vagueness of the regional physical boundaries. In fact, although the first regional divisions included four regions (Imarah)¹ ; Najed (in the central area). Hijaz (in the western area), Asir (in the south western area), and Hassa' (in the eastern area); their boundaries were not clearly determined.

The same feature occurred in the first development of the regional divisions which involved eight regions (Imarah), the previous four regions plus the new regions included Mecca, Riyadh, hail, and Al-Qasseem region. These regions, on the other hand were connected hierarchically with the king directly which means the governors (umara') of the regions were reporting directly to the king (Khashoggi 1979 ;and Samman, 1982).

However, after the creation of the Council of Ministers, the regional divisions were categorized according to the link between the region and the central government. First of all, the regional governments were connected administratively with the Ministry of

¹ See glossary for more explanation about Imarah,Umara,and Amir terms.

Interior. Some of these regions were linked directly with the minister, such as Riyadh, Mecca, Hail shammer and, Hassa', while the others were connected with the deputy minister.

Later on, the number of the regions increased to nineteen, whereas the categorization remained the same as well as the vagueness of the regional boundaries. In 1975 the Ministry of Interior changed this system and divided the country in 14 regions as shown in figure (2.1). All of the regions in this new divisions were linked directly to the Minister of Interior. The regional division here was based on an administrative criteria rather than any other criteria². Each region (Imarah) according to the 1960's act was supposed to be headed by a governor (Amir) who is the highest authority in the region. In fact, the authority in the local level is actually limited to the following up process of the local ministerial subordinates' performance, in addition to very limited legislative authority concerned with specific local cases and needs³. Also, according to the 1960's act, each region is supposed to include in its administrative authority and structure, a council called "Al-Majlis Al-Edari" or "Majlis Al-Mukatta" which both mean the council of the region. The council was headed by the governor and used to contain four to eight members who used to be appointed by the king. The council idea, however, has not been implemented as Khashoggi concluded in 1979, and still in the same situation until now. Moreover, most of the administrative structures in the local level was and still are based on dispersed regulations and sanctions which led to a considerable intersections between the local ministerial subordinates, particularly between the principality and the municipality. (Al-Sibaa'i, 1986). Consequently a Royal decree was issued in 1984 involving a clarification of the relationship between the principality and the municipality in term of authority, responsibility and administrative hierarchy (Al-Malik, 1986).

² These divisions do not represent all the ministerial distribution of regional authority, because each ministry has its own. For example, Khashoggi mentioned in his study the differences between Ministry of Health which has six major regional offices and the Ministry of Education which has ten regional offices.

³ For examples, regulations that concern building heights, set-back etc. regarding a specific city or towns

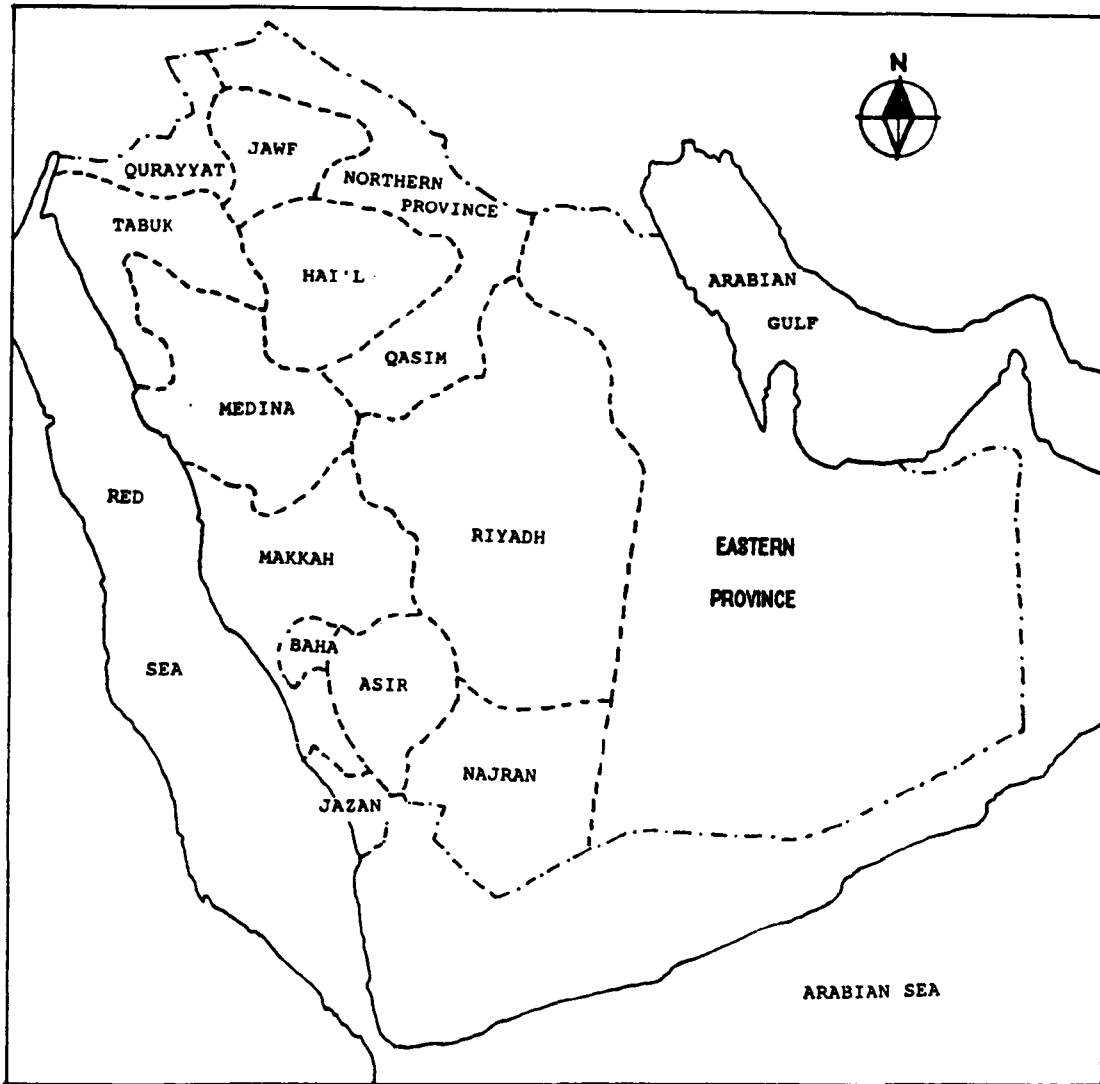


Figure 2.1 : The regional administrative divisions in Saudi Arabia (the current existing condition)
 (source: Bondoggi, 1980)

Accordingly, it could be stated that the relationship between the local and central government tends to be highly centralized specially in term of legislating and making the judicial judgements, except the local simple judicial cases which can be decided by the local court. also, the local government does have a very limited authority as the regional council included in the 1969 Act has not been actuated yet. Rather, the council's authority or some of it, has been assigned to both the Minister of Interior and the MMRA according to Municipalities regulations were issued in 1977(Al-Sibaa'i, 1986).

On the other hand, some other councils and committees have occurred which play some of the regional roles proposed by the 1960 Act.

In fact, in the 1970's the Ministry of Interior sanctioned a decree to establish a committees which were led by the governors of the regions or the deputy minister of interior for municipal affairs with a membership of the principality deputies and city planners in the municipalities. These committees were called "The Higher Committees for Planning". They were given the responsibility of studying and evaluating the local plans and of supervising the preparation of these plans. For example in Riyadh city the committee was created to supervise the development of the city economically, socially and physically. In particular the committee is responsible for making and approving the policies concerning the city development, in addition to co-ordinating between different public agencies in the local level. The committee involved eighteen members including the head who is the prince (governor) of the city and his deputy. Also the mayor of the city (Ameen) and other members who used to represent the various governmental agencies in the city. Moreover, the committee was given the authorities and responsibilities of the regional council mentioned above(Al-Hammad, 1986). In some cases such as the holy cities, Mecca and Medina, a special higher administrative bodies, in addition to the local high committee for city planning and development, were created to manage and make the top policies and programmes for the city development. These bodies are headed by the King himself with a membership of some ministers, the prince of the city and the mayor. This committee

approves the plans of the city's development and make the budgeting programmes for these developments in addition to the annual following up and monitoring.

Figure (2.2) may summarize the identification of the contemporary local government structure in Saudi Arabia. As can be seen in the figure; there are three elements in the administrative relationship between the central and local government :

- a. The Principality which is led by the Prince (governor), and he is the highest authority in the regional level. He reports to the Minister of Interior, and he is responsible for following up the local ministerial subordinates' performance including the Municipality. Also he is responsible for supporting the decisions made by the local court and executing them without any change of amendments, in addition to the security responsibility of the region. The Prince actually leads and supervises most committees which aim to coordinate the various governmental agencies' actions in the region, such as the high committee for city planning and the committee concerned with the water and sewerage networks developments. In some cases the prince leads the higher committee for city developments such as Riyadh, Mecca and Medina.
- b. The Municipality which is independent of the Principality. It has its own policies, regulations and budgeting programme. In policy making the municipality reports to the MMRA which approves in particular the regulations concerning land development and distribution, planning and building permits. However, the municipalities may coordinate with the principalities and other governmental agencies within the framework of the Five Years National Plans. They can also in consultation with the principalities issue local specific regulations and instructions but within the central framework of approved general regulations and policies, such as building heights, set-backs and so forth.
- c. The ministerial local subordinates, which are agencies independent of the principality and the municipality regarding

the vertical administrative relationship. These agencies include:

- * The local court which is a local subordinate of the Ministry of Justice.
- * The Directorate of Mosques and Endowments which is a local branch of the Ministry of Pilgrimage and Endowment.
- * The Directorate of Education for Boys which is a local subordinate of Education Ministry.
- * The Directorate of Education for Girls which is a local branch of The Presidency of Girls Education.
- * The Directorate of Roads which is a local subordinate of Transportation Ministry.
- * The Directorate of Health which is a local subordinate of Health Ministry.
- * The Directorate of Agriculture which is a local branch of Agriculture Ministry.
- * The Directorate of Water and Sewerage Networks which is a local branch of the Municipal Rural Affairs.
- * The Directorate of Telegraph, Post and Telephone which is a local branch of Ministry of Telegraph, Post and Telephone.
- * The Directorate of Traffic, civilian defence and other civic services which is a local branch of interior Ministry.
- * The Directorate of National Guard which is a branch of National Guard Presidency.

- * The Directorate of Defence which is a local subordinate of Ministry of Defence.
- * The Directorate of Housing which is a local branch of Ministry of Housing and Public Works.
- * The Directorate of Labours and Social Affairs which is a local branch of the Ministry of Labours and Social Affairs.
- * The Commercial Office which is a local branch of the Commercial Ministry.

There are some other local public subordinates and agencies but they are not directly concerned with the city planning and development. However, although the above local subordinates report to different central agencies and have their own different policies and strategies, they suppose to coordinate with the Principality and the Municipality in regard to local developments and activities.

In conclusion, it can be said ,theoretically,that the relationship between central and local government in Saudi Arabia is a vertical centralized one. Where the top policies, laws and regulations, plans and financial programmes are made in the central level, while the implementation process is mostly performed by the local ministerial subordinates. Except some local specific regulations which can be issued by the Principality with the recommendation and consultation of the concerned agency. Also the local Court may have the authority to make judgements concerned with the local simple and quick cases without contacting with the central levels. In addition, some municipalities in the late period were given the authority to make and approve their local plans and policies, and negotiate with the Ministry of Finance, their budget programme, directly without referring to the MMRA. Figure (2.3) shows the nature of the relationship between central and local government and the size of their powers accordingly.

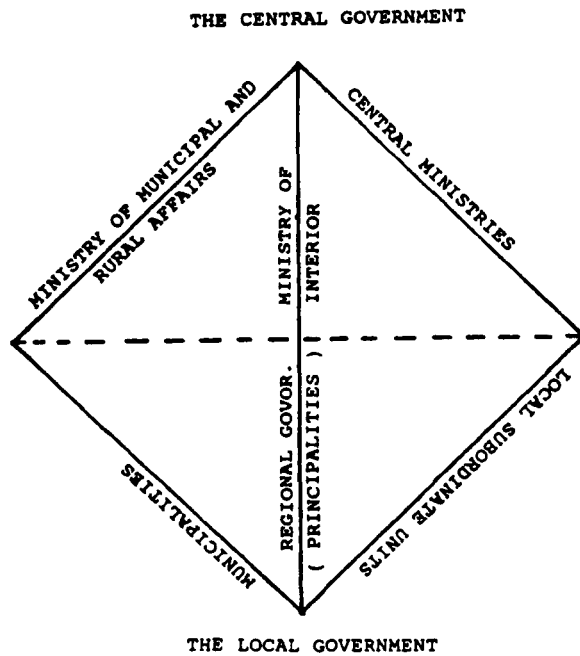


Figure 2.2 : The relationship between central and local government regarding vertical hierarchy (source: khashoggi, 1979)

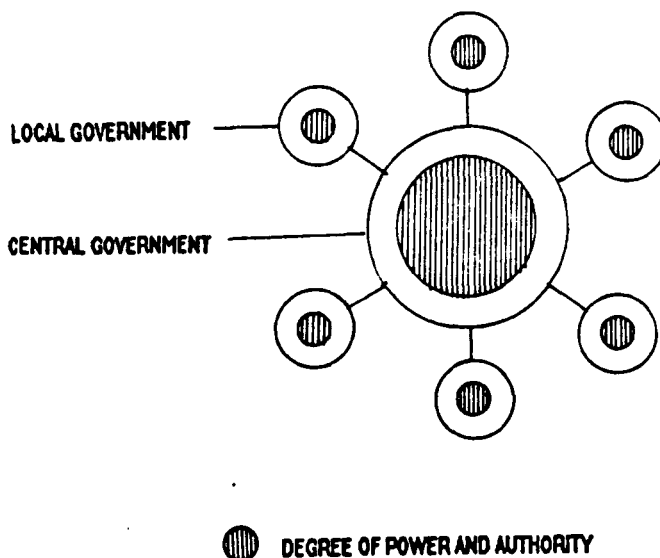


Figure 2.3 : The relationship between the central and local government regarding the degree of power and authority

2.2 Evolution of urban and regional planning machinery.

The city planning and development from regulative and control point of view does have a very deep-rooted in the history of Muslim civilization. In fact, most of cities for example in the Arabian Peninsula, were influenced in their urban form and pattern by the Islamic Institutions stemming from Qura'an and Sunnah which are suppose to be the principal sources of all regulations, laws and other forms of controls in the Islamic environments. For example with the evolution of the Islamic Sharia', for instance, in subdividing lands and orienting buildings. In accordance with the required privacy. These institutions continued influencing city development through a particular administrative structure based on Islamic teachings until the end of the Ottoman Empire. In this period the concept of the municipality was imported from the western experience and implemented mostly in the western province of Arabia, particularly in Mecca, Medina and Jeddah. The involvement of the Court, which based its judgements on the Islamic Sharia', and the municipality in controlling the developments within the city was considerable. Within this pattern of urban control city development was being operated. In the first stage of the Saudi State evolution development control continued in the same manner. In fact, several acts and statutes were issued concerned with city development, such as the Acts 1937 and 1941. The former gave preliminary authority to the municipalities to develop zoning regulations and building codes, while the latter spelt out the authorities' conception of town planning which included planning procedure, building codes, zoning and rights-of-way. In spite of this however, the municipalities only provided social services in addition to directing and initiating particular urban developments.

In 1958, the government established a department within the Ministry of Interior for municipal affairs and administration. Its conception of town planning was, however, still very limited.

The first generation of the modern urban planning machinery occurred in 1960 by establishing Jeddah Office for city Planning with the assistance of United Nations experts. Before that time there was no

unified machinery for town planning as we can conclude from the description above, although several large modern urban developments appeared dispersed across the country. Among these were ARAMCO's urban developments in the eastern province particularly in Dammam, Khubar and Dhahran cities, and the Al-Mallaz District in Riyadh developed on a modern gridiron pattern. It was sponsored by the government as a particular project for her employees (Al-Hathloul, 1985). In addition, the expansion and the enlargement projects of the two holy mosques in Mecca and Medina the projects were supervised by the Two Holy Mosques Presidency whose president was reporting to the king directly (Felemban, 1976). Hence, the Jeddah for city planning office grew up by the time, and was responsible for most of the municipalities throughout the country.

In 1962 the Council of Ministers approved the Ministry of Interior's proposal to create an independent function within the ministry for the municipal affairs. Consequently, a deputy of the Ministry of Interior for Municipal Affairs was established. In the same time, during 1965-1970 several other offices were created for city planning involved Riyadh Office to be responsible for the central area. Dammam Office for the eastern area and Abha Office for the southern area. And as a matter of fact, the operation of these offices during this period was dependant on the expatriate experts (Felemban, 1976).

Moreover, these offices gradually increased to be six, and became the regional offices of the Interior ministry for municipal affairs (the Central Office responsible of 28 municipalities, Western Office for 17 municipalities, Eastern for 18, Southern for 20,

Northern for 10 and Al-Qaseem for 9 municipalities). They continued operating even after the major enhancement of the urban and regional planning machine. In fact, in 1975 the Deputy Ministry of Interior for Municipal Affairs was replaced and upgraded by a full independent machinery for urban and regional planning, which was the Ministry of Municipal and Rural Affairs (MMRA).

The Ministry was created to be responsible for city planning, municipal services management, land administration and rural

development. For thus, it included in its administrative structures five major deputies:

- a Deputy Ministry for Municipal Affairs (DMMA), which is responsible mainly of municipalities management all over the country.
- b Deputy Ministry for Rural Affairs (DMRA), which is responsible of rural development and management.
- c Deputy Ministry for Technical (DMTA), which is responsible for designing and supervising municipal infrastructure projects and environmental projection activities.
- d Deputy Ministry for Planning and Programming (DMPP), which is mainly responsible of policy analysis, programme planning, resources development including manpower development.
- e Deputy Ministry for City Planning (DMCP), which is mainly concerned with spatial planning activities all over the Kingdom, and in all levels (i.e. national, regional and local)(Mashabi, 1988).

Hence, the six regional offices remained ,as mentioned above, as one of the components of the urban and regional planning machinery. The purpose was to decentralize the work of the ministry among them.

The offices, in fact, share all the Ministry's main tasks as well as their own internal administration. They are headed by director-generals, who are responsible for the effective discharge of all the Ministry's activities, in addition, to all decisions concerning towns in their regions, except those decisions requiring the minister's approval by regulation. These offices used to be responsible for all municipalities in the Kingdom except Riyadh, Mecca and Jeddah. This responsibility, however diminished gradually as more municipalities gained the autonomy to run their own affairs. Figure (2.4) manifests the recent structure of the MMRA.

ORGANISATION STRUCTURE OF MOMRA
EXISTING ORGANIZATIONAL STRUCTURE OF MOMRA

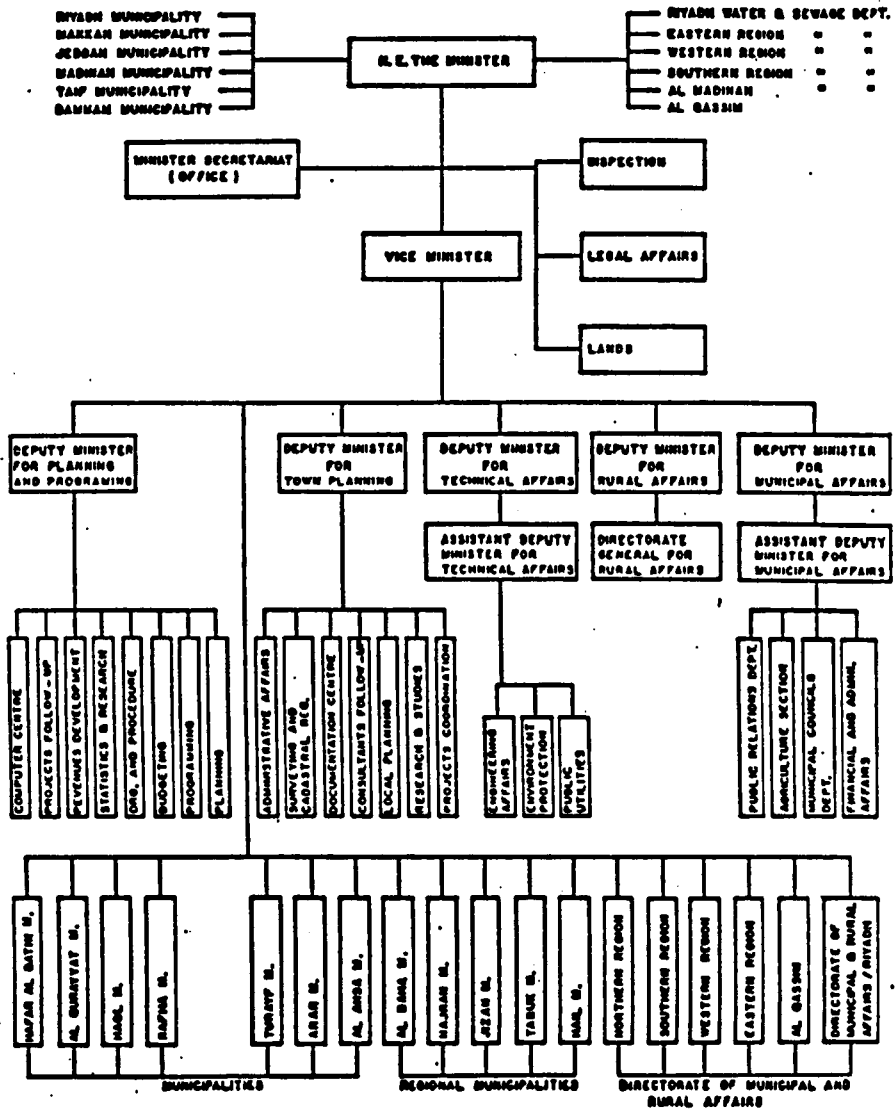


Figure 2.4 : Orgnization structure of the Ministry of Municipals and Rural Affairs
 (source: Al-Mashabi, 1988)

It could be noticed that the Ministry, in addition to its responsibility of the municipal and rural development and services management, is also responsible of water and sewerage services.

From the figure, various ranks of municipalities could be noticed. In fact, there are five ranks in regard to the power and authority were given to them in running their own affairs.

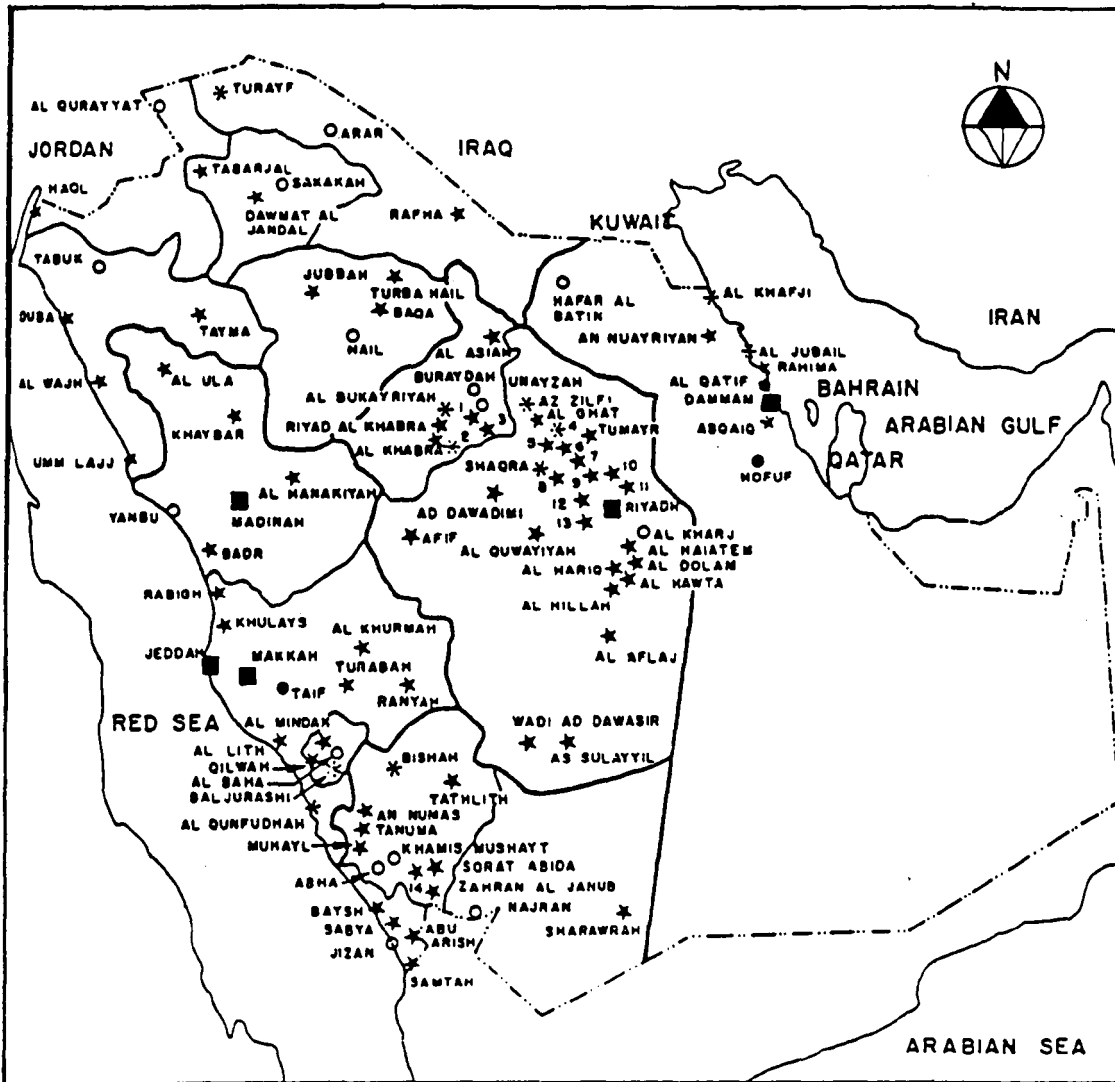
The first rank is "Amana" which indicates to the highest major municipalities which are connected with the Minister directly, and do have the authority to prepare their own financial and budgeting programmes. Also, they can negotiate directly with the Ministry of Finance about the annual budget, without referring to the central office of the MMRA. Moreover, these type of municipalities can prepare and technically supervise and approve their own physical plans and developments. Most of them are of the largest cities in terms of population and are, in addition to zone of influence and location. The cities are managed by this rank of municipalities include; Riyadh, Jeddah, Mecca, Medina, Dammam and Tayif. (Mashabi, 1988).

The other ranks involve four types of municipalities: type A,B,C, and D. All of them are linked to the regional office. They differ in the size of authorities and were given to them to run their internal and external works. Accordingly they are supervised by the regional offices, particularly in preparing the annual budget, physical plans and administration of the consultants work (Mashabi, 1988). Figure (2.5) shows the quantity and distribution of all type of the municipalities among the fourteen regions.

2.3 The concept of urban plans in Saudi Arabia.

The concept of urban plans in Saudi Arabia needs to be seen within the planning context as a whole in Saudi public administration.

Planning in Saudi Arabia is essentially concerned with two aspects. One is the socio-economic aspect which is the subject of the



- | | | |
|----------------------------|--------------------|---------------------|
| ■ AMANAH (MAYORALTY) | 1 - AL BADA' | AL UYNNAH |
| ● MUNICIPALITY GRADE A | 2 - AL RASS | 12 - DURMA |
| ○ MUNICIPALITY GRADE B | 3 - AL MIDHNA'B | 13 - AL MUZAHIMIYAH |
| * MUNICIPALITY GRADE C | 4 - AL MAJMAAH | 14 - AHAD RAFIDAH |
| ★ MUNICIPALITY GRADE D | 5 - AL JLAJEL | |
| — ADMINISTRATIVE BOUNDRIES | 6 - RAWDA SUDAIR | |
| | 7 - HUTET SUDAIR | |
| | 8 - MARAT | |
| | 9 - THADIC | |
| | 10 - HURAYMILA | |
| | 11 - AL JUBATLYA B | |

Figure 2.5 : Classification and distribution of the municipalities in Saudi Arabia (source: Al-Mashabi, 1988)

national five year plans. The other is the physical aspect which is the scope of the urban plans especially at the local level.

Although the urban planning experience in Saudi Arabia has started very early as mentioned above, our concern will focus on the late stage which involved the comprehensive urban and regional planning experience. In fact, all the activities occurred before 1970, exhibit the early stage of not only the urban and regional planning experience, but also all other activities concerned with the society's development in all levels. The best description of this period, regarding the planning experience, is as Taylor says "an extension of the house-keeping function of city administration." (Taylor, 1984). Most activities were based on the day-to-day needs without any integrative framework and coordination between the various public and private interests.

However, the government performed the first step of the comprehensive planning in the 1970's, as a consequence of the financial deficit and the emerging need for a comprehensive framework to coordinate government action. This in turn with the dramatic economic growth that occurred in 1973 influenced the urbanization structure and city growth all over the country. And within the context the first generation of comprehensive urban and regional planning experience emerged.

In fact, the main purpose of adopting national planning was to organize government institutional activities and coordinate them within a comprehensive integrative framework. The aim was the socio-economic development and improvement of society as a whole. Consequently the objectives of the first Five-Year Plan was to eliminate some major constraints emerging because of the inadequate infrastructural facilities, manpower shortage, and budgetary constraints. During this period i.e. the period of the First Five-Year Plan (1971-75), the urban planning machinery was trying to cope with the rapid urbanization. Several contracts were signed with an international consultant to prepare comprehensive physical plans for the major five geographical regions of the country (See Figure 2.6).

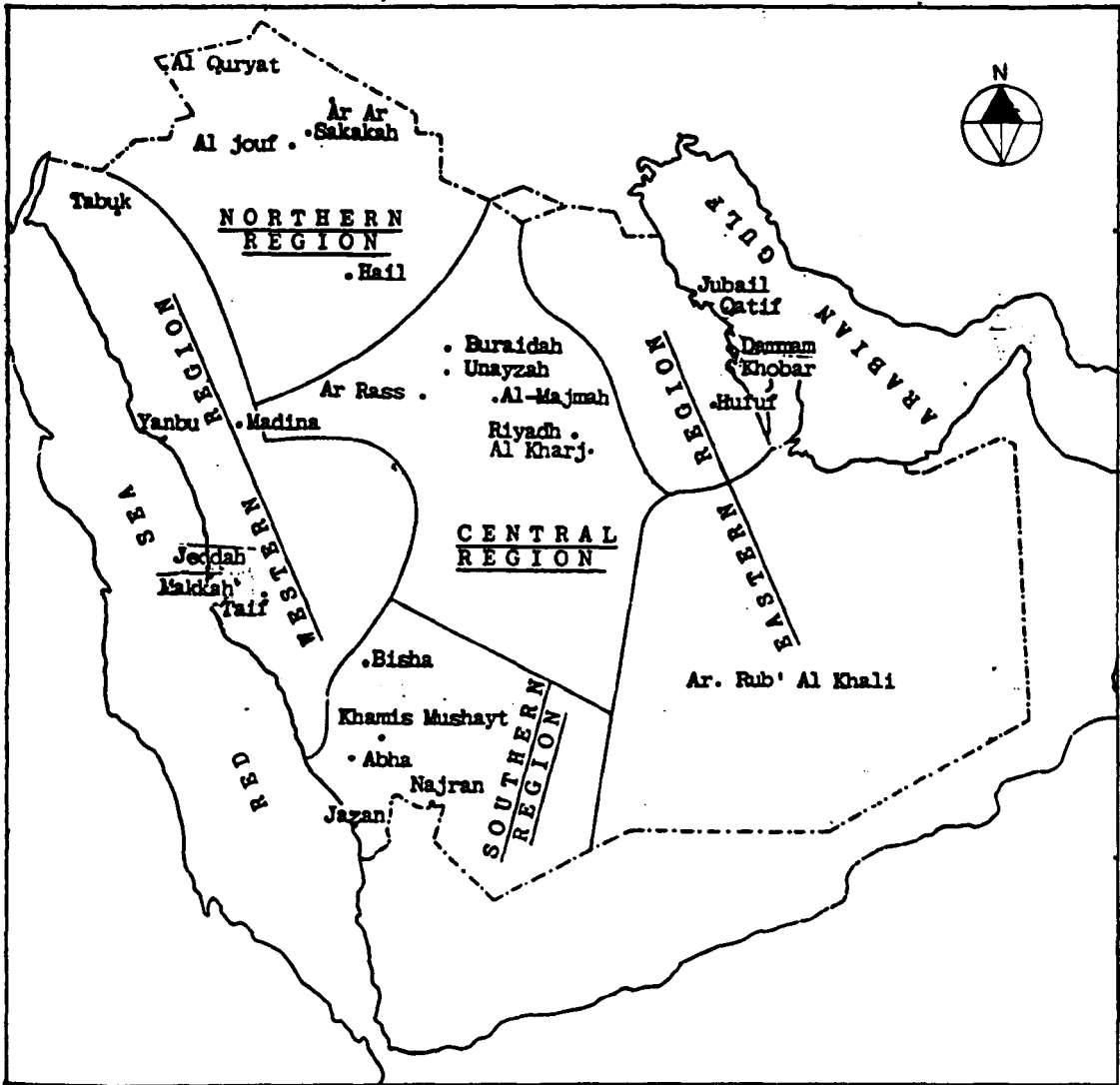


Figure 2.6 : Regions and centers covered by regional and master plans during 1973-75
(source: Al-Hathloul, 1985)

The main purpose of the plans was to control and direct the physical spatial changes and developments within each region. Also, the direct task was to show how the socio-economic investments included in the national five-year plan were to be distributed throughout each region, whether in the existing settlements or new ones related to each other, and what type of physical investments were appropriate for different conditions (Felemban, 1976).

In addition, the contracts for these projects included the preparation of master plans for the major cities in each region. The plans were concerned mainly with land use allocation policies, and locations of major projects were to be established within each city. Also, the Master Plans included a legislative framework and action area plans (detailed plans for particularly crucial and sensitive areas in the cities).

Nevertheless, however useful this experience of urban and regional planning was as a whole, its individual impacts were very poor because of the lack of information and of skilled planners involved in the implementation process. The situation was made worse by the failure to make accurate forecasts of either national economic performance or urbanization structures in the regions and cities. (Felemban, 1976 and Al-Hathloul, 1985).

The second generation of comprehensive urban and regional planning experience started after the establishment of the MMRA in 1975. This generation, in fact, appeared in the same time with the Second Five-Year Plan (1976-1980). Which was concerned, in some extent, with regional development, specially, as a result of the huge and dramatic changes in the National economic and urbanization.

Accordingly, the MMRA, as one of the major executive channels in the Saudi public administration for the national socio-economic objectives, drew a comprehensive framework to direct the spatial (physical) activities in the whole national, regional and local levels. So, in 1976-77 the MMRA launched a new project to prepare

Master Plans for seven major cities in the Kingdom; involved Riyadh, Jeddah, Medina, Dammam, Tayif, Jazan and Abha. The project was called "Action Master Plans Project". The scope of it was concerned mainly with physical aspects (changes and developments for short and long term), but in more detail, than the first generation of urban plans. Hence the main goals of this project, in regard to the MMRA central strategy were:

1. To draw an integrative and comprehensive image and perception about the urban growth mechanism within the seven major cities. Which would be optimal regarding potential evolution, in the light of expected development activities.
2. To determine the optimum urban boundaries for these cities.
3. To cope with the unintended impacts resulting from the process of development and growth in the 1970's, and accordingly to draw bases for the urban growth and development in these cities.
4. To rationalize the process of establishing infrastructure and determine appropriate locations according to the pattern of land use and development in these cities (Humood et al, 1986).

The Master Plans produced as a fruit of this project had different content to those of the first generation. The Plans were more specific in proposing the envisaged physical locations for land uses and development, and for major projects proposed by the Second and Third Five-Year Plans. In addition these plans were to be adjusted according to any short term changes that emerged. Consequently, the plans involved a comprehensive framework for the future urban growth and development within a fifteen year period (from 1980-1995). This time span, furthermore, was phased into three five-year phases to be linked with the National Five-Year Plans.

Also, the Action Master Plans included specific outlines for land use transportation, essential utilities networks and housing. The accompanying maps (scale 1:2500) give the specific locations and

distribution of land uses and developments in the cities. The Plans, also include detailed plans for particularly sensitive and important locations, in addition to general recommendations on the appropriate legal tools and land development policies (Al-Hathloul, 1985; and Kadhi, 1981).

This approach in Saudi urban and regional planning experience represents the primary stage of the integrative work between socio-economic planning and physical planning, where the Action Master Plans were proposed to be implemented within a phasing programme linked with the Five-Year Plans. An Evaluation and monitoring process was proposed to take place particularly at the end of each phase.

In the same time, as applying this approach to physical planning, the MMRA initiated another more comprehensive project for urban and regional planning. This project aimed to develop a comprehensive urban and regional strategy for the future spatial developments of all cities, towns, villages and other rural areas. The main objectives of this project were:

1. To undertaken urban and sectorial development in an integrative framework.
2. To maximize the utilization of existing resources each region in the regions.
3. To envisage the appropriate future distribution of the population according to the potential economic activities.
4. To determine urban patterns and hierarchy for the urban and rural settlements which comprise the national space.
5. To improve living standards through the equal distribution of services and facilities among all urban and rural areas:
 - a. On site if these sites can perform an accepted rate of development.

- b. In collective centers which provide the necessary services and facilities to a group of rural communities that can not carry the development process by themselves.
6. To rationalize the urban expansion and determine its boundaries and dimensions avoiding the unplanned capital expenditure.
 7. To integrate national socio-economic development strategy and physical development strategy. Also, to coordinate between national, regional and local objectives.

Consequently, several comprehensive regional development plans (with physical emphases) were prepared, based on the studies and frameworks drawn within the project mentioned above. These plans, in fact, have adopted the administrative regional divisions (figure 2.1, in sec. 2.1). And in term of content; these plans involved:

1. Specific descriptions of existing conditions in the region (urban and rural areas), including the urban structure (land use), population structure, economic structure, social conditions, infrastructures and potentialities and carrying capacities.
2. Formulation of urban and regional plans for each region which defined:
 - a. the characteristics of sectorial development which are expected in the region.
 - b. the relationship between resources and needs in the region.
 - c. the projection of development of urban and rural growth, and the functions of cities and villages in the region to cope with development needs.

- d. Infrastructure at regional and local levels.
- e. the time span required (urban and regional plans for 20 years).
- f. major projects proposed for the region.
- g. cost estimates for development processes in the region and its settlements.

On the basis of these regional and urban plans the functions of the cities and villages could be determined.

The regional plans tend to be developmental, rather than to be only physical-orientated. On the other hand the urban plans for the local level (i.e. cities, towns and villages) continued emphasizing the physical aspects, but within this comprehensive framework (i.e. the national urban development strategy and the regional comprehensive plans).

In fact, until recently only five regional comprehensive plans had been formulated and were being used. Mecca, Baha, Hail, Qaseem and Tabuk regional comprehensive plans. Other regions either are formulating their regional comprehensive plan such as Medina, or will formulate it subsequently.

However, during this round of activities by the urban and regional machinery, the Ministry of Planning produce the Third and Fourth Five-Year Plans. In the third Plan (1981-85) the emphasis on the regional level was increased considerably. It involved objectives that direct attention towards regional development such as the concern with a balanced economic growth between regions and it offers assistance especially to parts of the regions to involve them in the process of production (Ba-Junaaid, 1987)

In the Fourth Plan, the concern for regional development was made explicit, through the Operational Plans⁴. While in the previous plans, the Operational Plans implemented through the Ministries according to their hierarchical administrative structures, in the Fourth Plan, the Operation Plans in the first time assigned to the regional government offices (amarah) to use it in following up the ministerial local activities, regarding the socio-economic developments in each region (Ba-Junaid, 1987).

2.4 The Recent Planning Machinery in Saudi Arabia:

Concluding from the previous historical and conceptual exhibition, the planning system and machinery can be described as shown in figure (2.7). The system clarified in the figure based on four principles. Firstly the plans approval which can be performed in the highest level by the council of Ministers, or the King to be Royal Decree, in the Ministry's central office, and in the local level either through the High Committees for City Planning in each city or through the municipalities. The National five year Developmental Plan used to be approved at the Council of Ministers, while most of the physical plans and strategies used to be approved either in the central office of the MMRA if it is a national strategy and framework while the local and regional physical plans and policies are approved in the local level except in the case of rural and type A, B C and D municipalities. They operate and execute plans and policies that are made and approved in the central or regional level. Secondly, plan making, in the case of the National Developmental Plan, is processed at the central level, whereas the physical plans and strategies are processed at the central level if

⁴ The National Five-Year Plan, basically, includes Plan Document, which outlines the medium-term economic policies and development strategy, and Operational Plans which are a detail outlines for each Ministry and public agency. Hence, the Plans (both the national Plan Document and the agency Operation Plans) integrate the main elements of the development: the structural priorities and directions of the economy, and the development and expenditure programs of government. The later, i.e. the Operation Plans, become the guidelines for the annual budgets, which, as the first stage of Plan implementation, function as the main annual instruments of economic policy (see Fourth development Plan Document, 1985-1990).

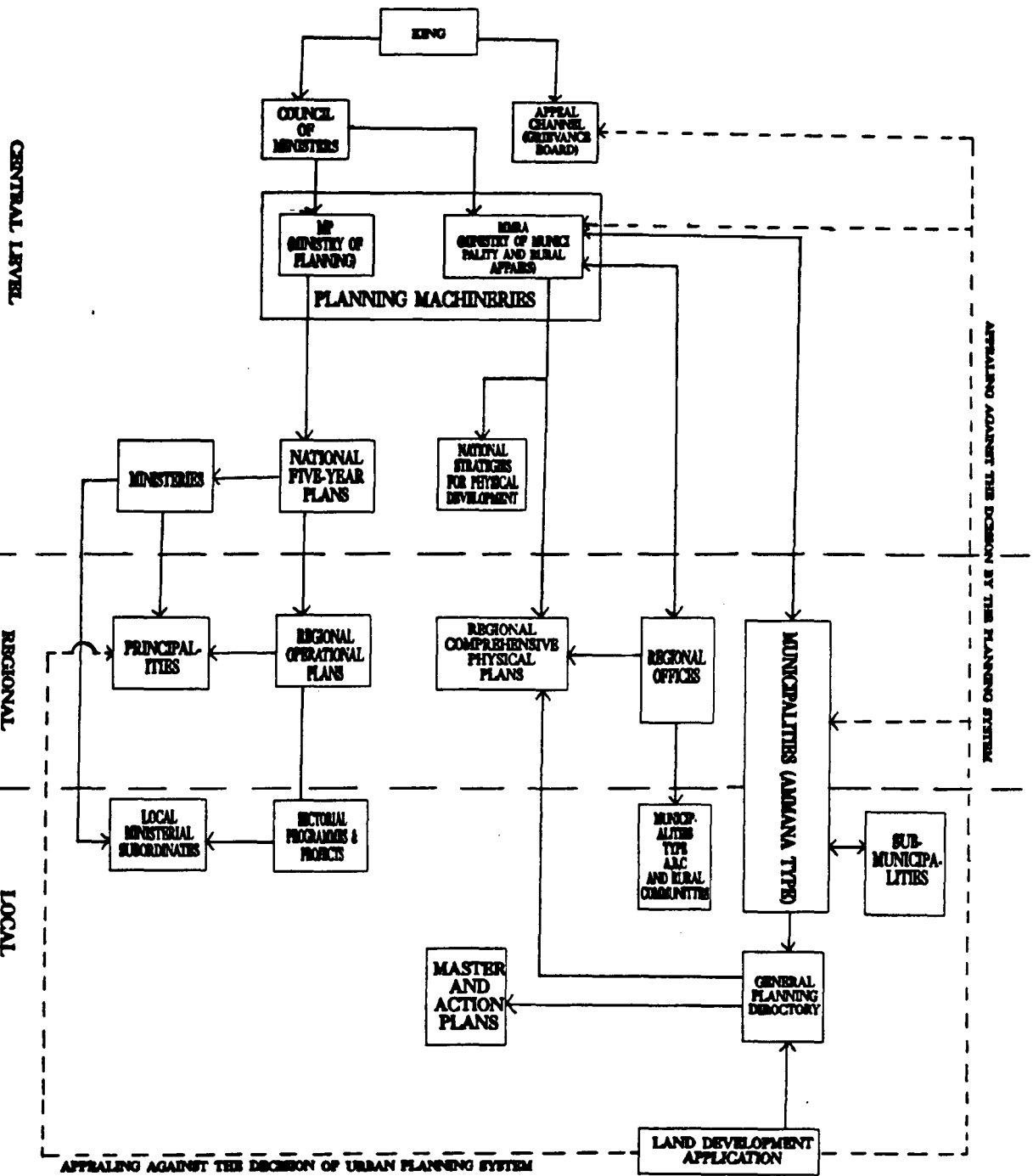


Figure 2.7 : The planning systems in the Saudi bureaucracy

it is a national strategy or framework and at the local level if it is a plan of a major city which has a "Amanna" type of municipality. Thirdly, the execution and implementation of the plans, which in the case of the National Developmental Plan is processed through the ministerial local channels and followed-up by the principality. While in the case of physical plans and strategies supposed to be executed and followed up by the municipalities and central office of the MMRA. Fourthly, the appeal against the urban planning system particularly by private developers. The appeal can be applied directly to the Mayors in the municipalities or to the central office of the MMRA as first alternative. The second alternative is to appeal to Appeal Bureau through its offices either regional or central.

Hence, the national Developmental Plan contains two main components; the Plan Document, which outlines the medium-term economic policies and development strategy, and Operational Plans which are a detailed outline for each Ministry and public agency, which in terms translated into specific projects and programmes. While, the physical policies composed of national strategies and frameworks which are for the whole national physical development, and the local plans which include the regional comprehensive and metropolitan master plans.

Any attempt to develop lands within the urban areas should be applied to the local municipalities to the planning department.

CHAPTER THREE

URBAN PLANNING CONTEXT AND PLANS IN MEDINA

A background about Medina, the location of the study, will be provided in this section. Also, the system of urban planning within the context of local bureaucracy and regulations as a whole will be described. Then a review and identification of Medina urban plans will be performed.

3.1 Medina

Medina is one of the two most holy cities of Islam which are of supreme importance not only for Saudi Arabia but also for the Islamic nation all over the world. The city was the Prophet Mohammed's home from where he started his movement to call for Islam. It has now become the second destination (after Mecca) of the pilgrims' journey each year.

The city has many distinguishing features of religious and historical significance, in addition to the attraction of its natural setting. In fact, Medina lies in a natural basin surrounded by barren hills, with Uhod and Ayr mountains north and south of the city respectively providing a contrasting backdrop to the harshness of the lava fields which surround the city to the south and east. Among these hard elements are green areas of palm trees which extend from north to east and from south towards the center of the city. At the very center lies Al-Haram (the central Mosque) the most significant building in the city.

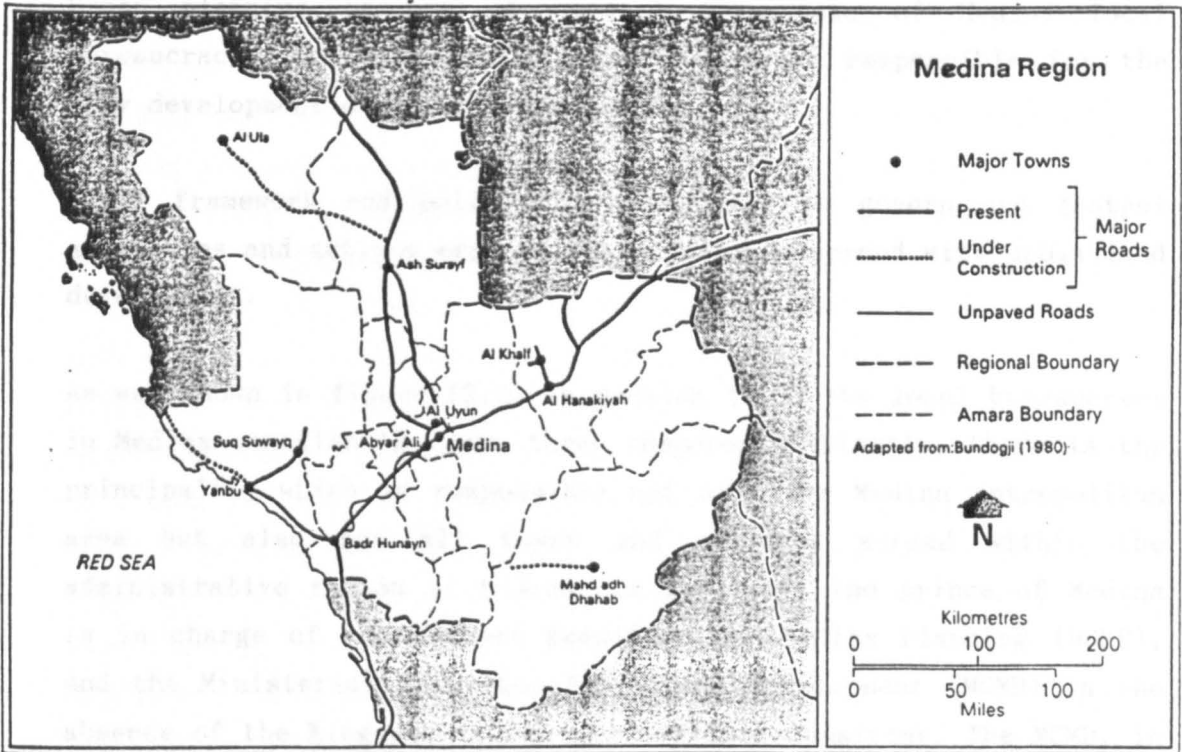
Geographically, the city lies 150 kilometers inland east of the Red Sea at an elevation of some 600meters. It is the capital and administrative center of Medina region (See figure:3.1). The city is one of seven major metropolitan centers of the kingdom. It ranks the fourth in terms of population.

3.2 Urban planning administrative context in Medina:

Medina is the largest city in this administrative region. Within this context; and basing on the national administrative description of the

Urban planning system, the urban form, urban planning system and building details system will be elaborated later.

3.2.1 The Urban Planning Strategy in Medina



fact, which usually is not a formal urban plan, but a set of requirements by the government for the city. The plan presents a report for the king's approval.

It is composed of two parts: the first part is the urban plan of Medina as a whole, and the second part is the urban plan of the districts. The urban plan of Medina is a comprehensive plan, covering transportation, housing, education, health, and social services, in addition to the basic urban planning and design. The urban plan of Medina is a comprehensive plan, covering transportation, housing, education, health, and social services, in addition to the basic urban planning and design.

Figure 3.1 : Medina region
(source: Abdullal, 1987)

plans and identifies the coordination of the urban plan with the various local plans. The urban plan of Medina is a comprehensive plan, covering transportation, housing, education, health, and social services, in addition to the basic urban planning and design.

urban planning system; the local urban planning machinery and building permit system will be introduced here.

3.2.1 The Urban Planning Machinery in Medina

Urban planning is one of several components of Medina local bureaucracy. The governmental machineries are responsible for the city development and stability; and the

legal framework and policies are supposed to govern and control activities and actions especially the ones concerned with urban land development.

As was shown in figure (2.3) in section (2.2) the local bureaucracy in Medina contains the same three components. Firstly, there is the principality which is responsible not only for Medina metropolitan area but also for all towns and villages spread within the administrative region of Medina. In addition, the prince of Medina is in charge of the Highest Committee for Medina Planning (HCMP), and the Ministerial Committee for Medina Development (MCMD) in the absence of the King who is the Head of this Committee. The MCMD, in fact, meets annually to draw up general outlines for Medina's needs and requirements in the process of the city development, and presents a report for the King's approval.

It is composed of the King as the head of the Committee, the Prince of Medina as vice-president, and a membership of some concerned ministers such as the HMRA Minister, Minister finance, transportation, Pilgrims and endowment, telegraph, post and telephone, in addition to the Mayor of Medina municipality and Ibn Laden (the owner of Ibn Laden Corporation).

HCMP was created to follow up the preparation of the local physical plans and administer the co-ordination of the implementation process among the various local public agencies. In 1981, the King approved a proposal to upgrade the authority of the Principality in Medina to be more directly involved in following up and monitoring all activities that concern the social, and tribal aspects in addition

to intervening in the work of other governmental agencies including the Municipality. HCMP also supports the governmental management of land acquisition, distribution and development. The prince is responsible, for dealing with the claims and appeals of people against either private or public individuals and institutions. (Al-Sibbai, 1986) The Prince is currently involved in all matters concerning Medina's development. In addition to being the head of the HCMP and the MCMD he leads the Committee of Water and Sewage, and the Central Committee for Pilgrimage. Also, he is the head of Taibah Estate Corporation which was created in the recent years as a means of implementing the national strategy for privatizing development, or in other words encouraging the involvement of the private sector in the development process.

Secondly, the ministerial subordinates which represent all the ministries and administer their activities either within Medina Metropolitan only which is rare or within Medina region which is most often the case. All the Directors of these subordinates are members of the HCMP. Some of them represent the regional level of the Ministry such as the Directorate of Education for Boys, Education for Girls, Mosques and Endowments, etc. While others represent a local level which is the lowest level in the hierarchy. Which means they report and are connected to a regional office, such as the Directorate of Health, telephone and electricity etc. Most of them have very limited authority in terms of preparing the five year or annual plans, policies and budget programmes. In the contrary all these activities are performed and included in the whole programmes and frameworks of the Ministries.

Thirdly, Amanah* of Medina. Before 1983 "the municipality in Medina was one of the type "A" municipalities, type which have authority to run their own internal affairs but must refer to the regional office in the preparation of the annual budget, the physical plans and the management of land acquisition and distribution. In 1983 the Municipality of Medina up-graded to be "Amanah", i.e. to run all its affairs without reference to the regional office. Instead, it was connected directly to the Minister of MMRA, and it now negotiates

* See Glossary.

with the Finance Ministry directly with regard to the municipal annual budget without going through the MMRA.

The municipality is mainly responsible for city planning, municipal services, land development and administration including land distribution within Medina Metropolitan area. This means that all other towns, villages and rural clusters within Medina region do not fall within Al-Amanah authority, but report to and are connected with the Western Regional Office of the MMRA, for their municipal and urban planning needs.

However, Medina Amanah recently involved in its administrative structure (see figure 3.2) the following machineries:

- a. The office of the Mayor (Al-Ameen) which supported by legal, administration development, planning and co-ordination, consultation, information and following up functions. These functions expected to play a role in supporting the leadership of the whole machinery in achieving the purpose of its establishment.
- b. Major deputies and functions which include:
 - b.1 Deputy Municipality for Technical Affairs (DMTA) is the first major function in Al-Amanah. It is responsible for drawing the general plans and policies of the city urban development, designing specific projects and implementing plans, policies and projects and maintaining services and facilities provided by the municipality.
 - b.2 Deputy Municipality for Municipal Affairs (DMMA): is the second major functions in Al-Amanah, and mainly is responsible of the environmental management and beautification. This, in fact, includes the waste disposal Management, environmental health and public recreation and parks management.

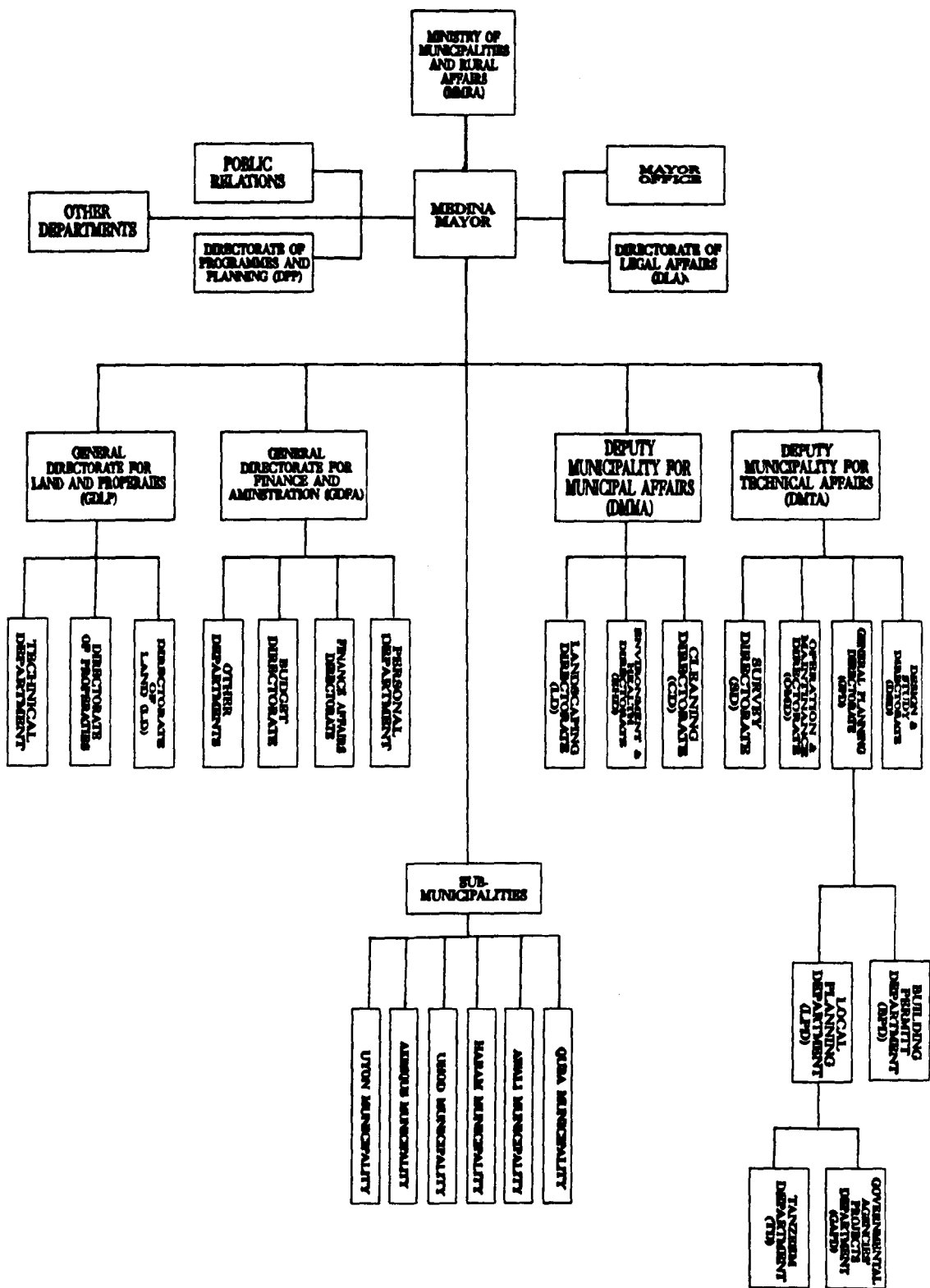


Figure 3.2 : Administrative structure of Medina Municipality (Amman).
 (source: Medina Municipality)

b.3 General Directorate for Land and Properties (GDLP) which is responsible of land management acquisition distribution and protection), public land which by law belongs to the municipality.

b.4 General Directorate for Finance and Administration (GDFA). It is in charge of programming the municipal budget, following up the governmental purchases and contracts, administering storage affairs and managing communication, archival and biblical services.

All of these functions are connected with the Mayor directly.

c. Sub-Municipalities, of which there were originally nine, and have recently been reduced to six (See figure 3.3). These sub-municipalities are supposed to be channels to decentralize the works of Al-Amanah among sub-divisions of Medina Metropolitan area. They, are responsible for administering the two services in their areas: granting permits which include building permits, health permits and digging permits; and monitoring, which includes the monitoring of buildings, municipal services, markets, street cleaning, food hygiene and green area protection and preservation. Accordingly, the sub municipalities' main function is in implementing the day-to-day activities of the urban planning machinery, while most of the short and long term plans and programmes, either in terms of evaluation or of the implementation process, is the responsibility of Al-Amanah main administration, through the four major directorates described above.

3.2.2 Planning and Building Permit System:

The recent practice of planning and building permit process can be manifested as shown in figure (3.4). Basically, the application for planning or building permission is proceeded to the General Planning Directorate (GPD). Mainly, the projects are classified into two types in term of proceeding through particular procedures to acquire the permission:

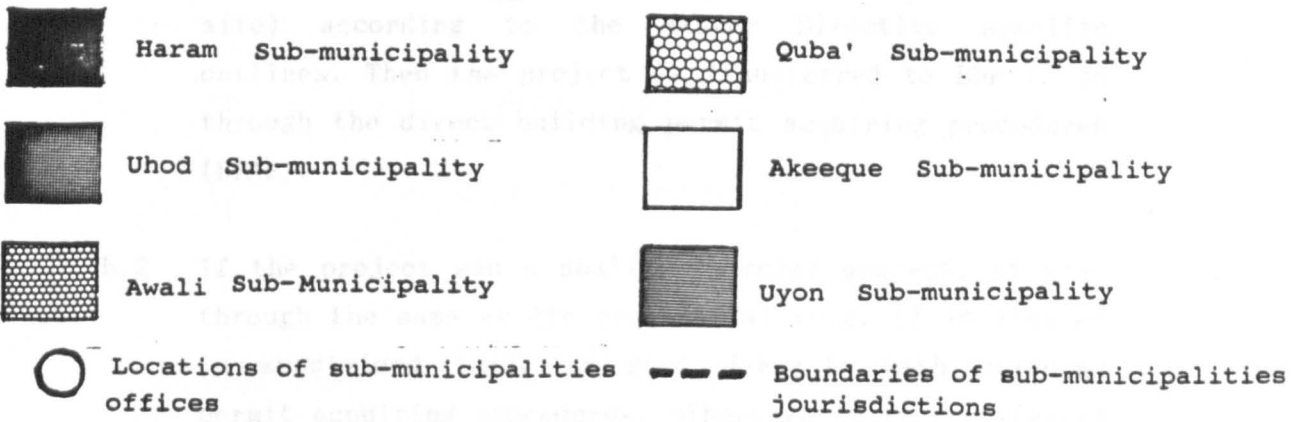
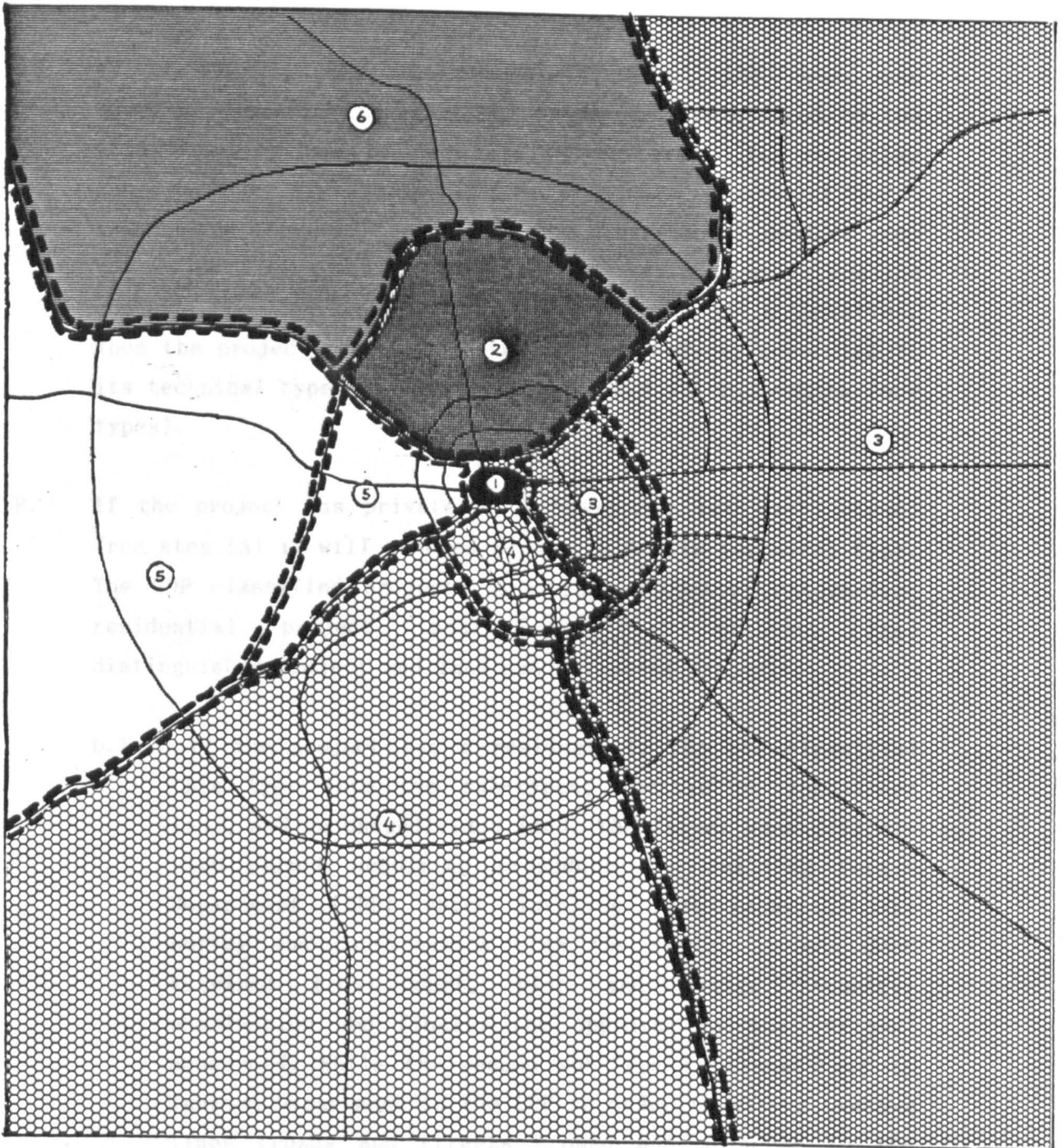


Figure 3.3.: Jurisdictions of the recent sub-municipalities in Medina(notice:their number were reduced from nine to six)

(source: Medina Municipality)

- A. If the project was a governmental (i.e. the owner and developer is a public agency); it will be transferred to the Local Planning Department, which is responsible for two other sub-department : Governmental Projects sub department (GPs) and Tanzeem sub department (TS). The governmental project goes to the GP's in terms of finishing the administrative routine concern the coordination between governmental authorities. Then the project proceeds in the next procedures according to its technical type (as shown in figure 3.4 which involves four types).
- B. If the project was private or governmental but was finished from step (A) it will proceed according to its technical type. The GDP classified projects into four technical categories; residential project, small commercial project, land distinguished project and land sub divisions project.
- b.1 If the project was a residential; the GDP classified this type into two sub-types; locates on subdivided land, and on unsubdivided land. The farmer goes directly with permit acquiring procedures in Building Permit Department (BDP) which involves fees payment, site survey and confirmation with the sketch in the deed acquired from court, plan and design technical examination and finally the approval by the official concerned. While the second sub-type is transferred to Tanzeem Department in the LDP in order to assign tanzeem lines (roads and streets around and adjacent to the site) according to the Master Directive specific outlines. Then the project is transferred to BDP to go through the direct building permit acquiring procedures (BPAP).
- b.2 If the project was a small commercial project, it goes through the same as the residential (e.g. if it locates in subdivided land, it goes directly with building permit acquiring procedures; otherwise it is transferred to Tanzeem Department then through direct to BPAP.

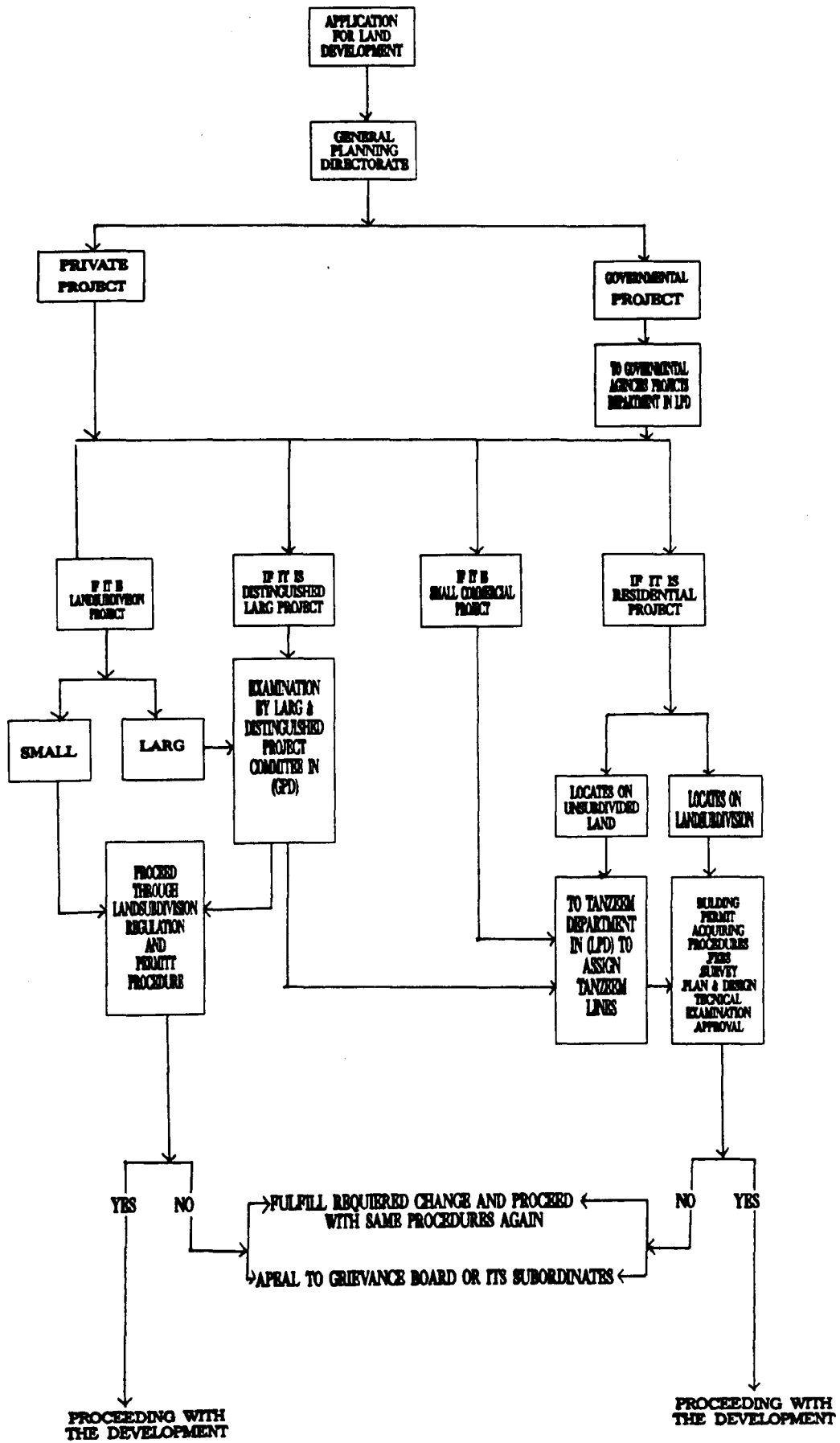


Figure 3.4 : The permit system

b.3 If the project is a large exceptional project, it should be examined by a committee, in the GDP, who is specialized in deciding on these types of projects according to the special needs of the city and other technical and administrative criteria. If the long project is a land sub division, it then goes through the land sub division Permit Acquiring Procedures (LPAP), otherwise it is transferred to LDP assign tanzeem lines or goes directly through (BPAP).

b.4 If the project is a land sub division, then it goes directly through the LPAP which involves two phases. Firstly, preliminary proposals permission which considers the land uses, density, circulation and integration of the site within the environment. Secondly, detail sub division plan permission which considers a specific requirement which includes technical conditions, land dedications and special considerations vis a vis plots and blocks (see appendix A-1). Otherwise, the land sub division project is transferred to the GDP to be examined by the special committee, then goes back through the LPAP.

C. If the decision of the GDP is (yes) then the owner proceeds with project construction. While if the decision is (No), then the action to be taken involves two cases. Firstly, fulfil the changes required by the GDP, then go back in the previous procedures until the proposal is approved and the decision becomes (Yes). Secondly, appeal against the GDP's decision through the appealing channels were shown in figure (2.8).

3.3 Urban Land Development Policies and Regulation Context:

Urban and regional planning activities in Medina are being operated within various policies and regulations, which reflect major elements of the system. The regulations and policies were formulated by different governmental levels and agencies, for example, the Municipal and Rural Ordinance was issued in 1977 by the MMRA. The

ordinance is actually an upgraded version of the 1936 ordinance which was issued by Ministry of Interior. The 1977 ordinance is concerned with the establishment of the municipalities as local subordinates of the MMRA. It determines the municipality's responsibilities and functions in regard to city planning, the management of municipal services and the development of rural affairs. The ordinance also organizes the relationship between the local council (Al-Majlis, Al-Baladi) and the Minister of the MMRA. Another ordinance which is concerned with urban and regional activities, issued in 1941 by Mecca Municipality, which was the major municipality at the time. The ordinance contained the only legal framework for city planning until recently. It includes fifteen sections which are concerned mainly with three issues: planning procedures, building codes and zoning and rights of way. In fact, the sections deal with city planning, land use and zoning; building lines, erection of buildings; architects; engineers and contractors, building restrictions, lighting, ventilation, utility facilities, chimneys and electrical wiring, preparation of land for residential buildings and regulations governing erection of buildings therein; fire and flood precautions; health precautions; building permits, application fees for erection and repair of buildings, building inspection fees and general provisions and premises exempt from payment of fees.

In addition, there are some statutes which directly or indirectly are concerned with urban developments. These include, law of premises, causing discomfort, disturbance, nuisance and health hazards etc.; Public places law; hotels law and expropriation law. Several circulars by the MMRA have also been issued during recent years. They cover the establishment of hotels; land grants, collection of information about the archaeological sites; procedures for the planning of landsubdivision schemes and rehabilitation and housing, in addition to land sub division regulation. At the local level several statutes were issued by the High Committee of Medina Planning concern the height of buildings, plot coverage; lot areas and car parking provision. (MMRA, REP. NO.7)

3.3.1 Public land ownership, management and policy:

Because there has not been a clear boundary between the urban and rural areas in Medina during the last 20 years, the discussion here will include the policies and regulation, which concern both of them.

Regarding the rural areas, an ordinance issued in 1968 concerns public land distribution for agriculture purposes. The implementation of the ordinance scheme was a responsibility of the Agriculture Ministry. The scheme of the ordinance is based on the notion of distributing land (5 hectares to any single individual, or 400 hectares for a company) to encourage agricultural activities and development. The land included in the ordinance is the gravel land located outside the urban area. Much land was distributed for this purpose and this distribution has influenced rural land use patterns. (Hajrah, 1982)

While with regard to the urban areas, all public lands were given to the municipalities, according to the Royal Decree (1954). The municipalities were assigned to manage the use, sale, rent and development of the public urban land. For this purpose urban land were categorized into three types:

- a. land within the built-up area of the city, which may be sold at auction.
- b. land within the immediately adjacent to the built-up area, in need of accurate surveying. Once surveyed, the Committee concerned was to determine an appropriate price for it.
- c. Other land which should be determined in terms of areas and prices by the same Committee.

However, the locations and prices of these types was to be monitored periodically according to the urban growth and change. (MMRA, 1975) The municipality has given the responsibility of implementing the urban land subsidy. The urban land subsidy scheme includes three types; firstly the Royal land subsidy which involves land that is granted directly by the King to individuals, companies or agencies.

Secondly, the low income land subsidy which is managed directly by the municipality. This type of land is to be distributed among the Saudi low income citizens. Thirdly, land subsidies offered by particular governmental agencies such as the National Guards and Ministry of defence. This type was distributed among the employees of the two agencies.

3.3.2 Real Estate Development Fund (REDF):

According to the Royal Decree in 1974, a medium and long range loan scheme for housing purposes was implemented by the establishment of the Real Estate Development Fund (REDF). The scheme based on the following elements:

- a. Medium or long range loans may be offered to cover the cost of house building to those Saudi Nationals of low and medium income who wish to construct their own houses. The approval of the application conditional on owning land and having a plan for a house approved by the Municipality.
- b. Offering loans with the purpose of city development and improvement. This may be by coordination and agreement with the municipality.
- c. The fund may make an agreement with the Saudi establishments to construct housing settlements to its employees by offering loans not more than 50 percent of the costs of the unit.
- d. The fund may give loans to any residential projects other than mentioned above provided the fund's management makes sure of the feasibility of the project and fulfillment of the conditions and specifications. (MMRA, REP. NO.8)

3.4 Urban Plans in Medina

It was into this context, that the urban plan, as a major part of the urban and regional planning machinery in Medina, was introduced. Two master plans made for Medina during the last two decades have been: Matthew's Master Plan in 1971 and GACDAR's Master Plan in

1978. Greater emphasis will be given to the second of these, as it is the subject of the present study. Purposely, the emphasis in the discussion will be on the aspect related to process rather than to subject matter of planning.

3.4.1 The Matthew's Master Plan

The first Master Plan of Medina was prepared in 1971. It was introduced within a comprehensive project concerned with the regional physical planning of the Western Region-of Saudi Arabia (commonly known as Hijaz Region). The project was assigned to the consultants Robert Matthew, Johnson-Marshall and Partners, a British Company. It aimed to produce the following:

1. A framework for a regional physical plan and development program for the Western Region.
2. Master Plans and Reports for Mecca, Medina, Jeddah, Taif and Yanbu, and Tabuk (added to the project later), and in addition plans for village cluster. (Al-Hathloul, 1985 and Felemban, 1975)

However, the circumstances of the period made it difficult to produce an effective plan. Little information was available and administrative evaluation was in its infancy not only in Medina and the Western Region but also all over the country. Accurate forecasting was almost impossible, as stated by George Duncon(1984), a representative of the RMEP Consultants.

It was within this context that the first Master Plan of Medina was prepared. The Plan was intended to be implemented through four phases over a period of 20 years (from 1971-1991).

There was no intention of preparing an end-state blue print plan: "in fact, so great were the unknowns likely to be that, basically, what we decided to do was to initiate a process of planning rather than to prepare fixed and inflexible plans". (University of Durham, 1984 p.21)

During the phases proposed by the Master Plan a process of planning as shown in fig (3.5) was to be practised. "This practical and day-to-day inter-relationship between immediate and often pressing decisions about on-going development and the longer term provision of the plan should be a continuous process aimed at securing the implementation of the plan" (Ministry of Interior, Master Plan Report, 1973. pp 8)

Basically the phases circled around two aspects; development and the control of the development. Because of the research purpose, the emphasis in presenting the phases will be upon the second aspect. The process of urban development and potential effectiveness of the plan implementation was first watched over by the consultants and by the planning agency: "With immediate effect the agencies involved in development control should exercise a watchful eye on the progress of the plan and public demand for development. From a development control point of view the first five years of the plan should be considered as years spent in ensuring that there are no problems generated outside the power of the authorities which will prejudice the successful implementation of the Master Plan" (Ministry of Interior, Municipal Affairs, 1973.) pp.151. In addition, a detailed plans, for action areas which were needed in the control of development were to be produced at this stage, but their implementation was not to start until the beginning of the second stage. The first phase was intended to take five years.

The development in this phase concerned only those projects of governmental and private agencies which were already committed.

The second phase was to last from 1976-1981. In this phase two aspects were the concern of the planning process; updating and reviewing the plan according to the pattern of the development process that had occurred within the first phase, and implementing the action area plans. This phase was considered as a base for the development of a planning framework that enables the planning agency to draw and design wide and specific guidelines for action

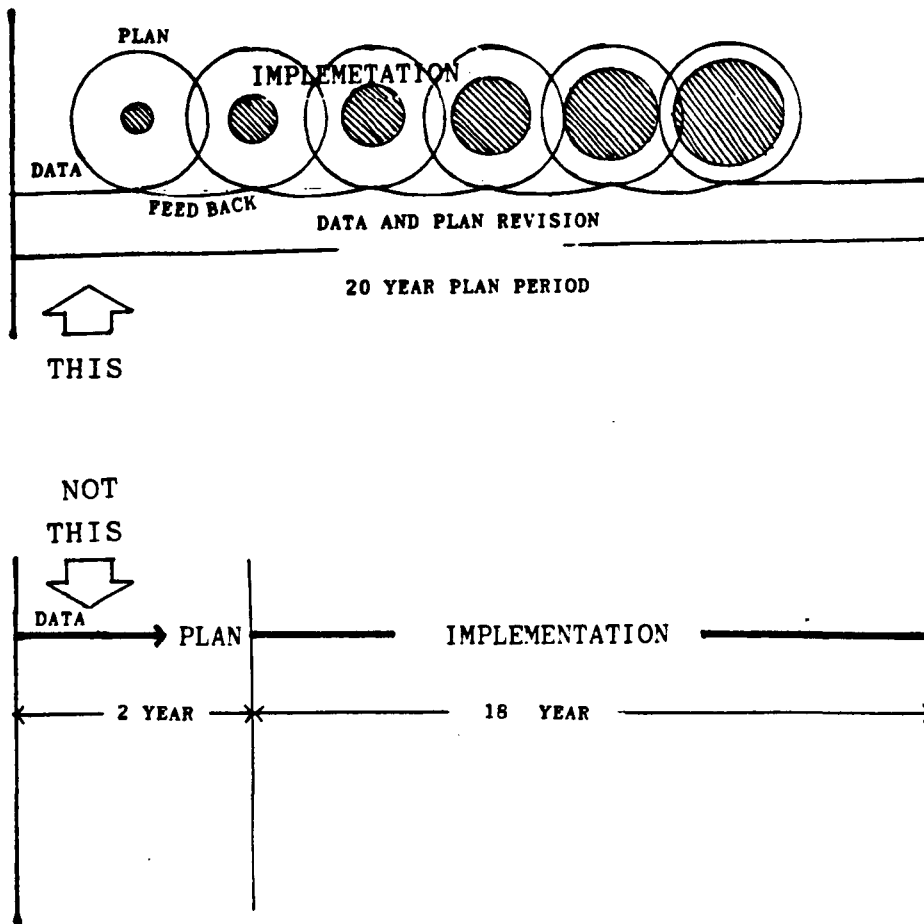


Figure 3.5 : The planning process concept proposed to be practised by Matthew
 (source: Ministry of Interior, 1973)

The plan forecast a certain growth of population in this period and foresaw a need for action by governmental agencies to provide the necessary services and facilities.

In addition the plan required strong control by the planning agency over the development particularly by the private sector to ensure the conformity of the development as a whole with the Master Plan outlines and detail policies.

During the third phase which is the longest one (ten years from 1981-1991), the Master Plan expected various growth patterns; i.e. population growth, maximum developmental actions, income increase which in turns raises the needs for more and better services and facilities. Furthermore, Medina, was expected to have its final urban structure by the end of this period, achieved through the active and effective control of the planning agency. From the procedural point of view, the plan emphasized the need for continuous review and updating of the forecast assumptions to ensure that the bases of the Master Plan proposals and recommendations, or even its goals and objective were not compromised.

"It is necessary therefore, that follow up studies be carried out, during the different phases on this plan so as to ensure that the plan, the assumptions and estimations are in conformity. This is one of the most important planning responsibilities" (Ministry of Interior, 1973. pp.147). In addition, managerial aspects of the planning process, especially human resource development, were emphasized in day to day planning activities.

Finally, the fourth phase was to cover the whole period of the Master Plan and affect the years beyond. Its emphasis was to carefully observe the strategic impacts which might have resulted from the pattern of urban development whether influenced by the plan or not. The trend of the development expected by the plan was to begin sometime before 1986 (MI, 1973).

Obsolescence and Validity of the MMP:

The plan's assumptions and proposals, were based upon an inaccurate information, which in turn invalidated the plan. In fact, while the plan was being operated within the first phase (1971-1976) which was expected to have only limited, growth of population, a huge growth in the national economy was witnessed. (see fig 3.6) This resulted in a very considerable change in the urbanization system, not only in the local level but also all over the country. (see fig 3.7)

This phenomenon of rapid growth, therefore, led to huge governmental expenditure on public services, facilities and infra structures as a response to increased demand. At the National economic level the financial support for the first five year plan (1970-1975) was about 41.3 billion (In Saudi currency), whereas the second plan's (1975-1980) was about 498 billion. (Al-Shari, 1983) Furthermore, the total committed expenditure for the Ministry of Municipal and Rural Affairs' investment projects considerably increased. In fact, in the first national plan, the total financial expenditure allocation was 9.89 billion while it was 62.2 billion in the second plan. (MMRA, 1986)

Hence, Medina was one of the major cities to be affected by this growth. Fig. 3.6 shows how sharply the population increased in 1973-5. At the same time, there was very rapid physical urban growth as fig. 3.7 makes clear. Moreover, various changes appear in the local economic structure; for example, the employment in the construction sector increased from 4.9 percent in 1971 to 11.4 percent in 1978 while industrial sector increased from 1.2 percent to 6.4 percent in the same period (MMRA, REP. NO.9).

As a consequence, various elements of the Master Plan have been rendered obsolete.

In fact, the road networks and land use pattern were not developed in accordance with the proposals in the plan. Figure 3.6; shows how urban growth exceeded the proposed phasing of development and that the development that had occurred by 1978, not only exceeded

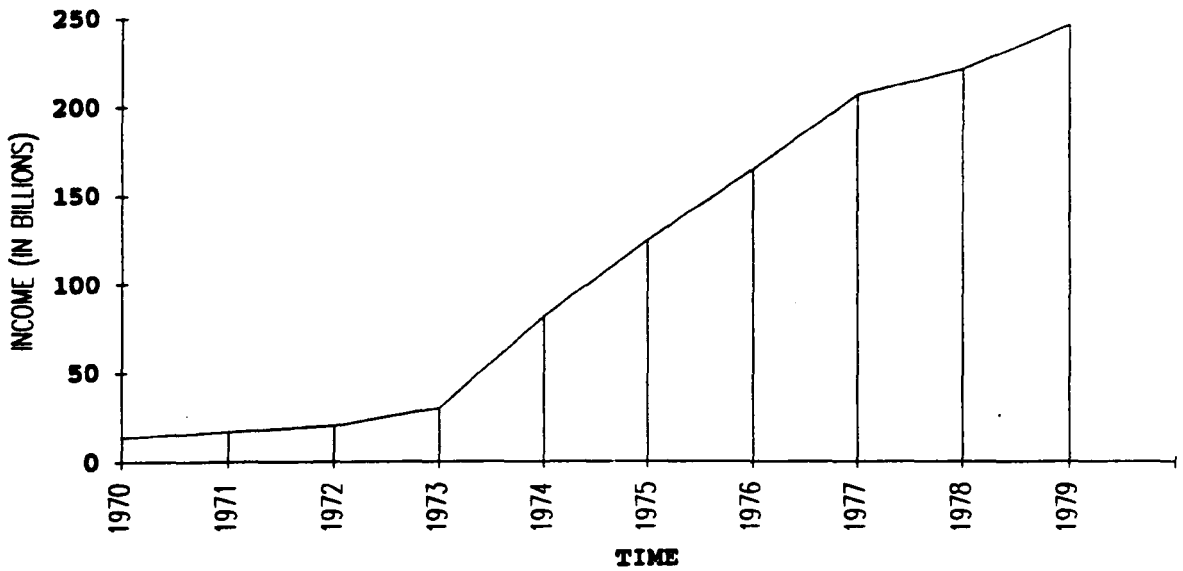


Figure 3.6 : National income growth.
(source: Islami, 1984)

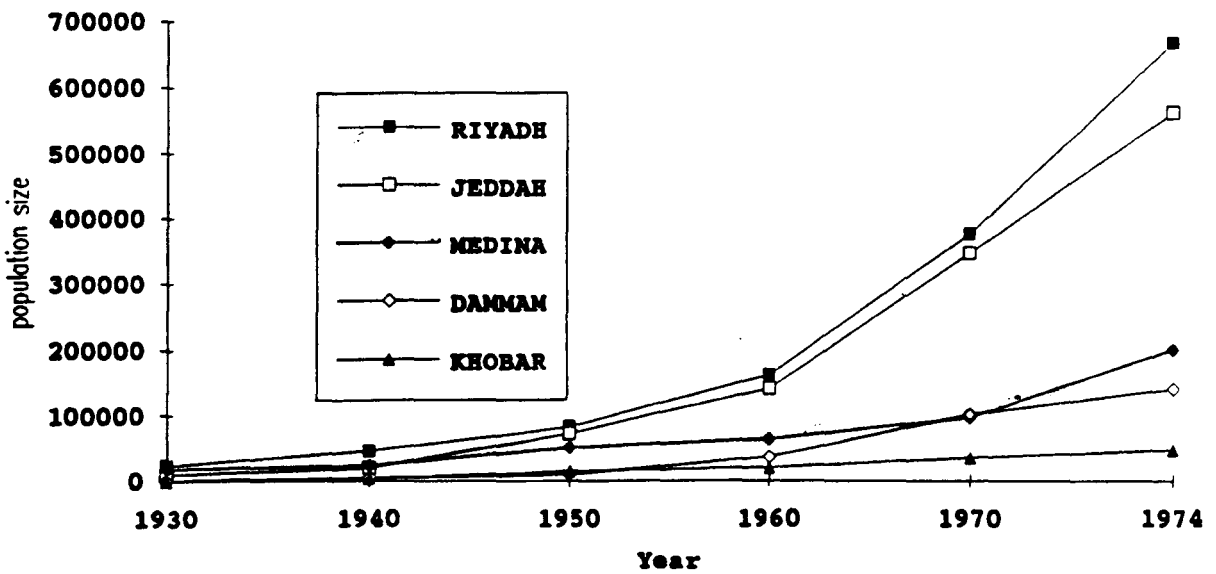


Figure 3.7 : Population growth in some Saudi cities
(source: Grill, 1984)

its phasing limits but was also beyond the limits of urban development scattered over and out of the in all the proposed phases. Moreover the action areas (central and northern areas) which had been a major concern of the Master Plan actually had developed in a manner contrary to the Master Plan's proposals.

Similarly, most of the projection of services and facilities needed which was estimated and located according to the expected growth of population, the way development was to be controlled, ceased to have any relevance.

Nevertheless for all that the first Master Plan displayed many weaknesses, the plan had and still has some validity for the planning process in Medina.

"The 1973 Master Plan of Medina was a great contribution to the initiation of the planning process for the city of Medina and will continue to be a useful basis for any planning efforts in the future". (Ministry of Municipal & Rural Affairs, REP NO. 9, 1982. pp.15).

The current Master Directive Plan have utilized some aspects as they were found viable.

3.4.2 Gacdar's Master Plan (GMP):

Within the context of the above situation of the existing Master Plan, a new project aiming to support the process of planning in Medina was launched. The project entitled "Medina Action Master Plan" (MAMP). It was assigned in 1977 to one of the national consultants: Group of Arab Consultants for Development And Reconstruction (GACDAR).

The project aimed not only to prepare the urban plans needed, but also to assist the existing planning machinery in establishing an institution capable understanding and operating planning as a continuous process related to the planning system in the country as a whole.

The geographical scope of the project was Metropolitan area of Medina which is the center of the region as mentioned above, and similar to the scope of the Matthew Master Plan.

3.4.2.1 Form and content of MAMP:

From documental point of view, the Medina Action Master Plans package comprises 19 technical reports, in 21 volumes. The reports, as can be seen in figure 3.8, technically can be categorized into two types: input reports and output reports. The former contains the essential studies which were based upon data and materials collected through various surveys, meetings and discussions, and previous planning studies.

In addition to these reports which provide an annual evaluation of the procedural matter of the project, as well as two reports which outline the final summary and prescriptions of the project.

The second type of report, is the fruit of the previous one. It contains the written documents of the various plans, as proposed by the consultant, which are: Master Directive Plan, Execution Plan, Action area Plans and the Cultural area Plans (MMRA, REP. NO.20/17).

3.4.2.2 The Master Directive Plan (MDP)

The MDP is indeed the main and essential guidelines which were outlined through the MAMP project, to direct the urban physical development in Medina. It is defined, in terms of purpose, as "the plan which translates social and economic policies of national and regional level to local levels, and leads to the formulation of a methodology for preparing and implementing the Execution Plans and the Action area Plans. In addition, the Master Directive Plan defines the objectives and general proposals, providing necessary guidelines and recommendations for planning the areas in the short run and, providing long term forecasts and recommendations covering the planning period that may span the coming 20 years". (MMRA, REP, NO. 12A, pp.2)

MASTER DIRECTIVE PLAN FORMULATION

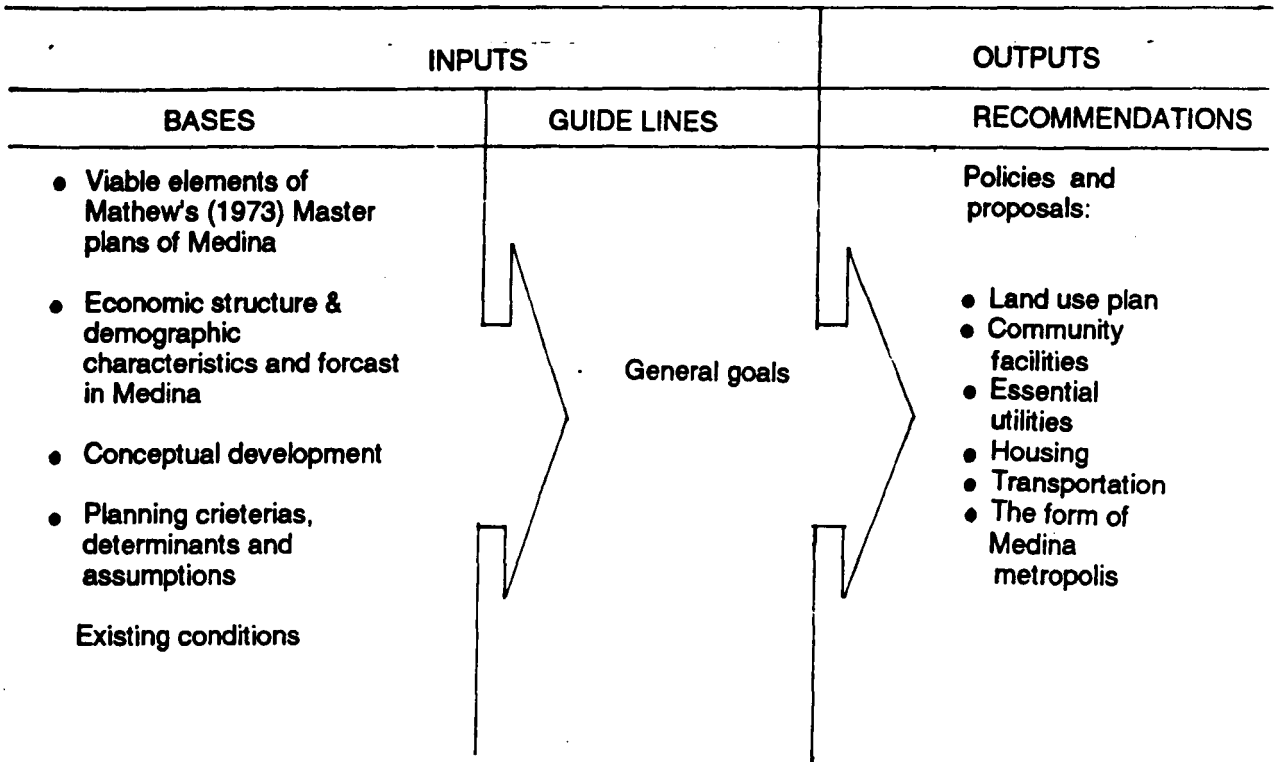


Figure 3.8 : The bases of the MDP guidelines & recommendations

Fundamentally, the MDP guidelines and recommendations were formulated based upon several principal foundations, that stem from the own characteristics of the society and the nature of the case (see fig. 3.8)

In fact, of four bases the former is the viable elements of the 1971 Master Plan, which emphasized upon the importance of:

- (1) Hajj (pilgrimage event) as the 'chief activity generator' and the major base for local economy of Medina.
- (2) The preservation and development of green areas for economic benefits, healthy environment and visual satisfaction.
- (3) The development of new urban units (neighborhood, community and district), and the higher property development of the underdeveloped areas. (MMRA, REP. NO.9)

The second base is the future projection of the economic structure and demographic characteristics of Medina.

The third base highlights the fundamental dimensions to be considered in the process of selecting the optimum strategy of development for Medina. In this light; the consultant stated, "Like Mecca, Medina is a city with exceptionally complex problems and hence calls for unorthodox approach to planning. The city is a religious and spiritual center of Islamic Nation. It renders services to Hajj* and Umra* visitors. It deals with trade, commerce, administration and advanced Islamic education. This suggests that Medina should be planned not only as a trade and administrative center during normal periods, but also as a holy city and the 'guest house' for the Islamic community to cater for the biggest congregation in the world every year" (MMRA, REP.NO.9, 1982, pp.56). In fact a conceptual exercise was carried out in two dimensions i.e. normative and explorative dimensions (see fig.3.9). Within this conceptual framework, a certain strategy for development which is more relevant to the concentric development was chosen for Al-Medina urban development (Fig.3.10) shows the three choices of

* See Glossary

* See Glossary

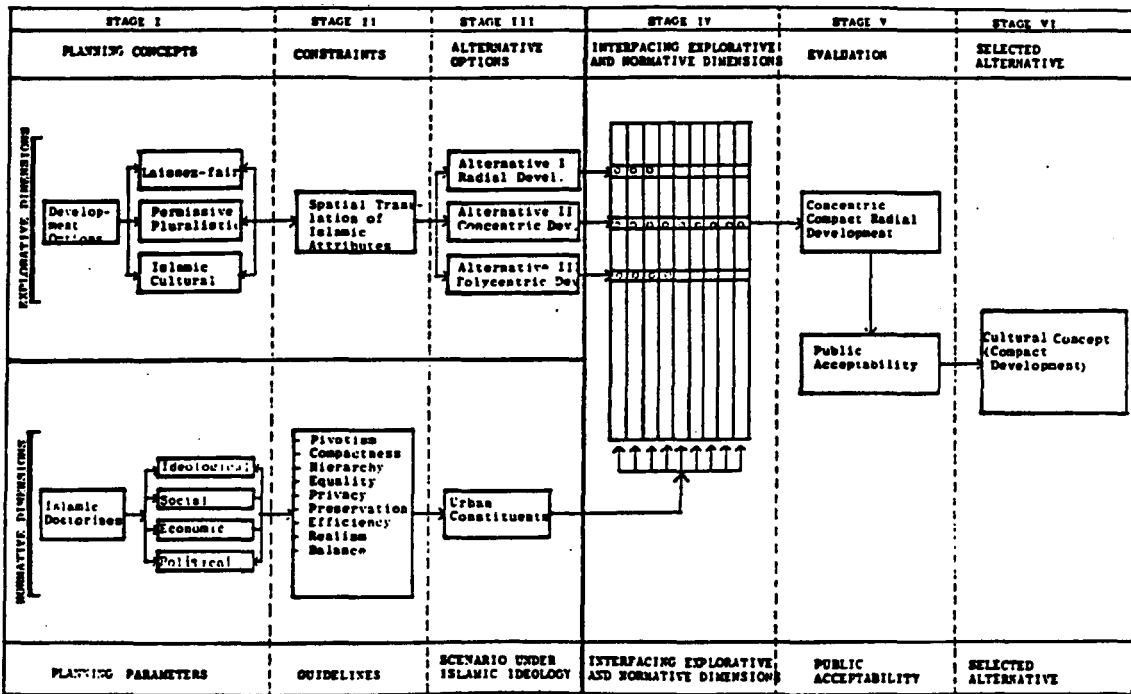
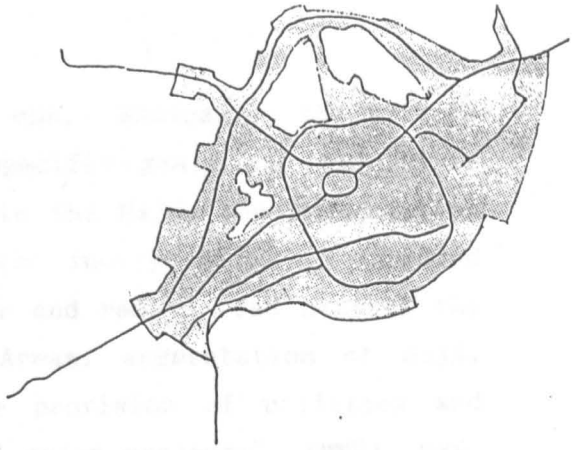
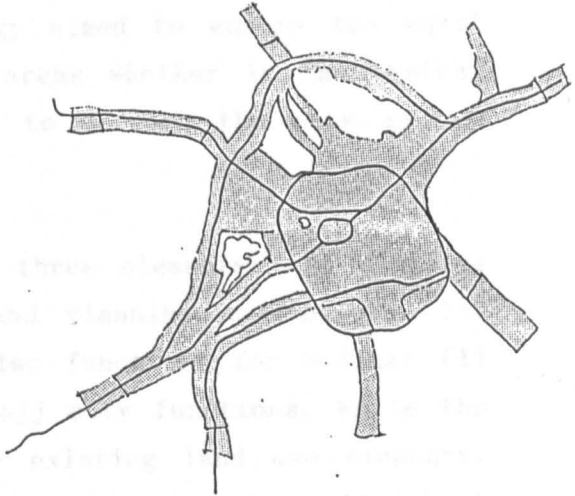


Figure 3.9 : The conceptual base for the content of the MDP (source: MMRA, Report No.9)

**CONCENTRIC DEVELOPMENT
THE SELECTED STRATEGY
FOR MEDINA DEVELOPMENT**



RADIAL DEVELOPMENT



POLYCENTRIC DEVELOPMENT

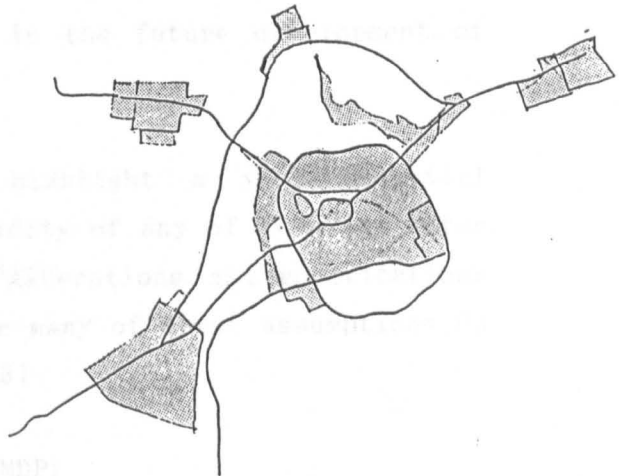


Figure 3.10 : Strategical alternatives for Medina urban development
(source: MMRA, Report No.9)

development's strategy and the chosen one. Basically, the process of selection was guided by certain specific goals and objectives including the assignment of priority to the Hajj, the augmentation of the Islamic character of Medina, the incorporation of approved Ring Roads, the adoption of a circular and radial road network, the preservation of cultural and Green Areas, augmentation of Hajj, related economic activities, adequate provision of utilities and community services, and integration of major projects". (MMRA, REP. NO.9). Moreover, the selected strategy aimed to ensure the equal chance of development growth in all areas whether in the central area or on the peripheries in order to develop the city as one entity¹ .

Finally, the fourth base consists of three elements: the planning criteria, metropolitan determinants and planning assumptions. The planning criteria, in fact, defines two functions for Medina; (1) the normal city functions; and (2) Hajj city functions. While the metropolitan determinants defined the existing land use elements, and the committed development projects, which together offer both opportunities as well as constraints in the future development of Medina.

However, the planning assumptions highlight a very essential element, the MDP based on. The invalidity of any of them may alter and modify the Plan applicability² . "Alterations and modifications may be required in the plan, if any or many of these assumptions do not materialize" (MMRA, REP.NO.9, PP.95)

Guidelines and recommendations of the MDP:

The guidelines and recommendations of the MDP were mainly based on the different principals highlighted above. However, the guidelines and recommendations are composed of the following proposals:

¹ More detailed information available in Appendix A-2, about the characteristics of the selected strategy.

² See Appendix A-3, for more information about these assumption.

- a. The land use Plan
- b. Community facilities
- c. Essential utilities
- d. Housing
- e. The transportation plan
- f. The form of Medina Metropolitan area.

A. The Land Use Plan:

The land use plan, in fact, is the major element of the MDP that potential to facilitate the implementation of the selected strategy for Medina urban development. "The proposed land use plan for Medina Metropolitan Area is directly co-related to the selected development strategy and its goals and objectives." (MMRA, REP, NO.9, PP.97).

In substance, the land use Plan's specific proposals concern the various types of uses, were outlined within determined purposes and policies related to the major type of uses, i.e. residential, commercial, industrial, agricultural, educational, public utilities and facilities, recreational and natural resources and Hajj services³ .

However, the MDP specified design concept and criteria for various land use elements, in addition to the hierarchical order of urban units (neighborhood, community and district) and their facilities. The MDP also proposed a metropolitan area boundary which is a function more than an administrative one, and designed to ensure control over the expansion of the city.

B. Social Facilities:

Basically, the facilities were determined by the MDP, in relation to national objectives and planning standards. The main facilities proposed included facilities for religious activity, educational, health and government agencies (communications and public security, fire protection and community facilities).

³ See Appendix A-4, for more information about the purposes, policies and proposals of land uses.

C. Essential Utilities:

Given the fact that the urban growth and development is strongly affected by the development of infrastructure, the MDP made specific recommendations concerning the water supply and sewerage network, the storm water drainage network, telecommunications, telegraph and postal system, the electricity supply network, and solid waste disposal.

Within the general outline of the MDP phasing of development, the specific objectives concern each utility and their existing conditions, the MDP have drawn the guidelines of these essential utility development.

D. Housing

Trends have been observed in the housing sector in Medina as a result of various factors (rapid changes in the socio-economic structure, technical advancement and national policies), recommendations for housing sector were developed.

Furthermore, the MDP has estimated the amount of housing required in each of the three phases of development, in addition to the policies designed as guidelines for the form housing development.

E. The Transportation Plan:

In terms of subject matter, the Transportation Plan based its recommendations and proposals on the existing road network. Projections of key parameters (population growth, employment, income levels, vehicle ownership and school enrolment), led to a transportation strategy based on the importance of dispersing traffic outside the central area and of enhancing the sanctity and the character of the central area. This was to be achieved by establishing another ring road, the intermediate ring road, between the first and second ring roads, and by modifying the vehicle circulation in the central area to create a loop system inside the

first ring road. The land-use/transportation analysis was conducted by computer simulation.

As a result, a specific structure for road network has been proposed, with a complete hierarchy of routes whose function is described. It includes expressways, primary, secondary tertiary, and access roads. In addition, the plan also contains policies for public transportation which emphasize a bus-system as the optimal one; rapid transit which encourage bus transit, too; Both short and long term parking provision was also made in the transportation. Plan guidelines. The MDP plan described the action needed as an effective measure to establish a clearly defined hierarchy of roads which includes the regional transport (Mecca-Medina highway, improved road links between Medina and Hail, possible north south and east west rail lines and the enhancement of the existing airport to international status. (MMRA, REP.NO.9)

F. The form of Medina Metropolitan:

The form of Medina metropolitan area has been determined by both the natural features and man made features. Among the former are surrounding mountains and residue of lava eruptions; the latter include the urban pattern and the palm groves and small stretches of agricultural lands in addition to the dominant architectural form of the central mosque, provide the base for the general aesthetic guidelines of the MDP for the MMA form (MMRA,REP.NO.9).

3.4.2.3 Execution Plan (EP):

This plan is a supportive technical plan which is defined by the MAMP as "a tool for implementing the policies and recommendations of the Master Direction Plan. Hence, it is detailed in content and its recommendations are definitive. It also provides the basis for the qualitative design of different components embodied in the MPD." (MMRA, REP, NO.12A.pp.3).

The plan is actually composed of two separate documents an atlas which includes 299 maps drawn to a scale of 1:2500, showing location

of public services and essential utilities in each action area and other areas up to and in some cases beyond 1995, and a report that specifies the hierarchy of urban units which has been the basis for the physical structuring of the MDP, EP and the Action Area Plans. The report in fact shows the detailed estimations of the land and financial support required for the physical development proposed by the MDP and other Plans. (MMRA,REP.NO.17/20)

3.4.2.4 Action Area Plans (AAP): Short Term.

AAP's basically are a detailed translation of the MDP General Guidelines. "The action Area Plans are actually detailed plans based mainly on the Master Directive Plan. They are defined as a "tool for implementing the programme and projects in the areas of concern within the framework of the Execution Plan." (MMRA,REP.NO.12, pp.3) The AAP's aimed to perform a specified function included in the MAMP project which contain, as presented in the AAP:

- a. application of the MDP strategy:
- b. provision of a detailed basis for physical development control
- c. forming a basis for co-ordination between private and public projects and;
- d. acquaintance of the authorities with local planning problems in detail (MMRA,REP.NO.17/20).

Hence the AAP's varies according to the different defined areas concerned. The areas include built up areas, semi-built-up ones and undeveloped areas, but within the outlined boundary of Medina Metropolitan by the MDP. All the areas defined actually characterized by a certain problematic urban phenomena. In fact, the built-up areas are "areas where squatter development spreads and have to be provided with services for inhabitants of the district, for Hujjaj (pilgrims) and other visitors" (MMRA, REP.NO.12A: PP.10). It includes the central area and western Harah (Harah Gharbia).

The semi-built-up areas are those areas consisting of illegal and unplanned squatter development; sub division plans; and universities and other public institutions which are beginning to be established

and therefore require re-planning to accommodate these new functions to be integrated into the MDP. This area is categorized as the southern area.

The undeveloped areas; areas which are mainly vacant areas designated for the expansion of the city. These are areas characterized as being "near to existing development which can be easily served with the extension of the existing public utilities" and which are "to be planned according to the recommendations of the MDP and to be developed as models of complete projects, preferably on public property to facilitate implementation." (MMRA, REP. NO.12A:PP.12). The undeveloped area classified as the northern area (fig.3.11) shows the location of land specified for immediate development action by the planning agency.

3.4.2.5 Cultural Area Plans (CAP):

The cultural area plans are, in fact, a guideline for preservation of areas that have a particular importance regarding the identity of the city. These areas were defined in the MAMP as "those parts of the cities and towns which have cultural heritage. These areas often provide aesthetic delight. Sometimes these areas indicate distinctive achievement in urban planning and architectural design which is not only valuable for its own sake but as a guide for future work" (MMRA, REP.10: PP.vii). Most of the cultural areas concerned in Medina have a special interest for their association with famous historical places and events; i.e. places and events relate to the life of the Prophet Mohammed and. Therefore, "the cultural Area Plans envisage the improvement, protection or enhancement of such cultural areas." (MMRA, REP. NO.12A:pp.34) Thus the plans suggested means and methods to be used for the preservation and maintenance of such assets e.g. individual buildings, group of buildings and their surrounding areas. In addition to specific outlines for land uses and services needed for pilgrims, and the road network systems (see figure 3.12).

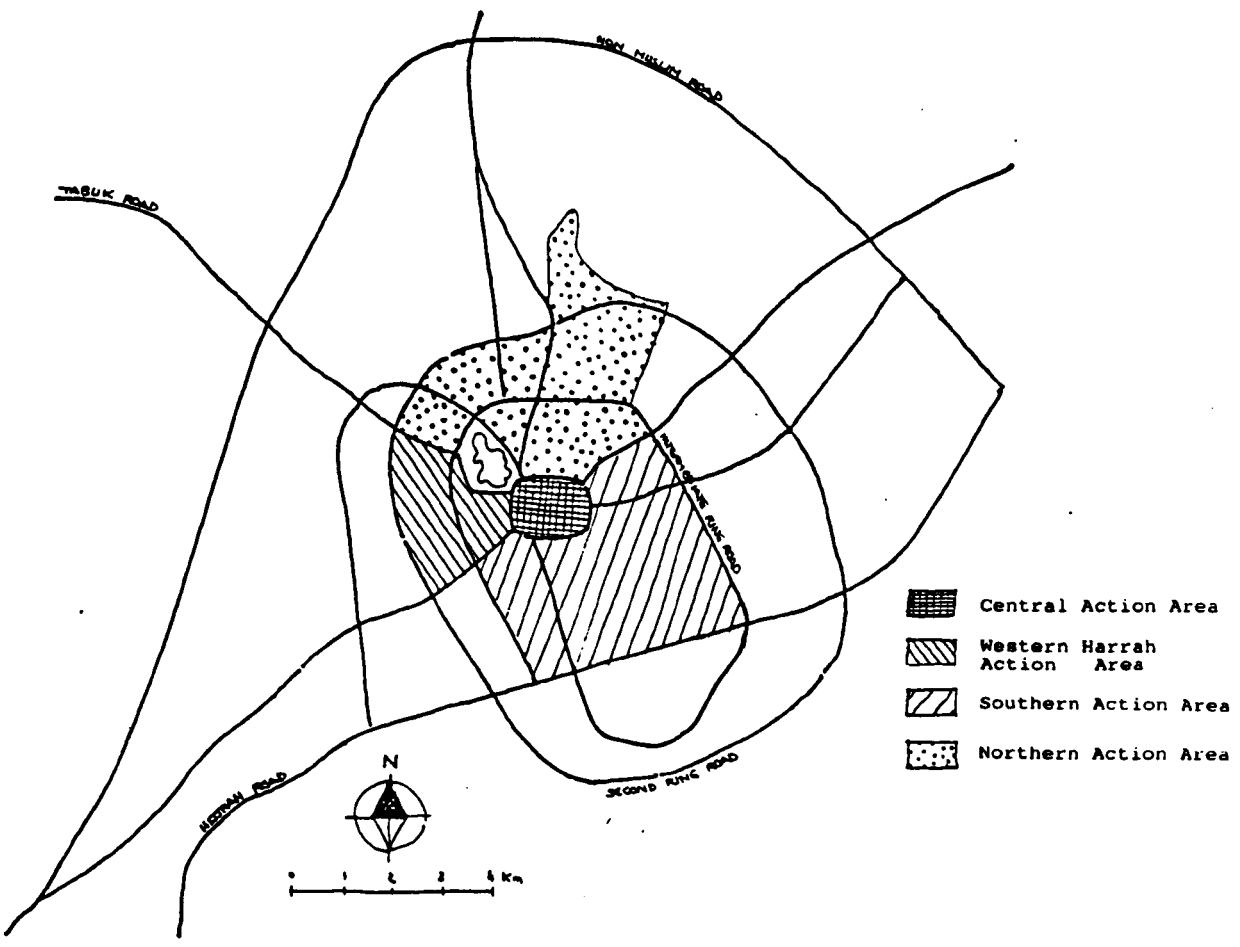


Figure 3.11 : Location of the action areas.
 (source: MMRA, Report No.12A)

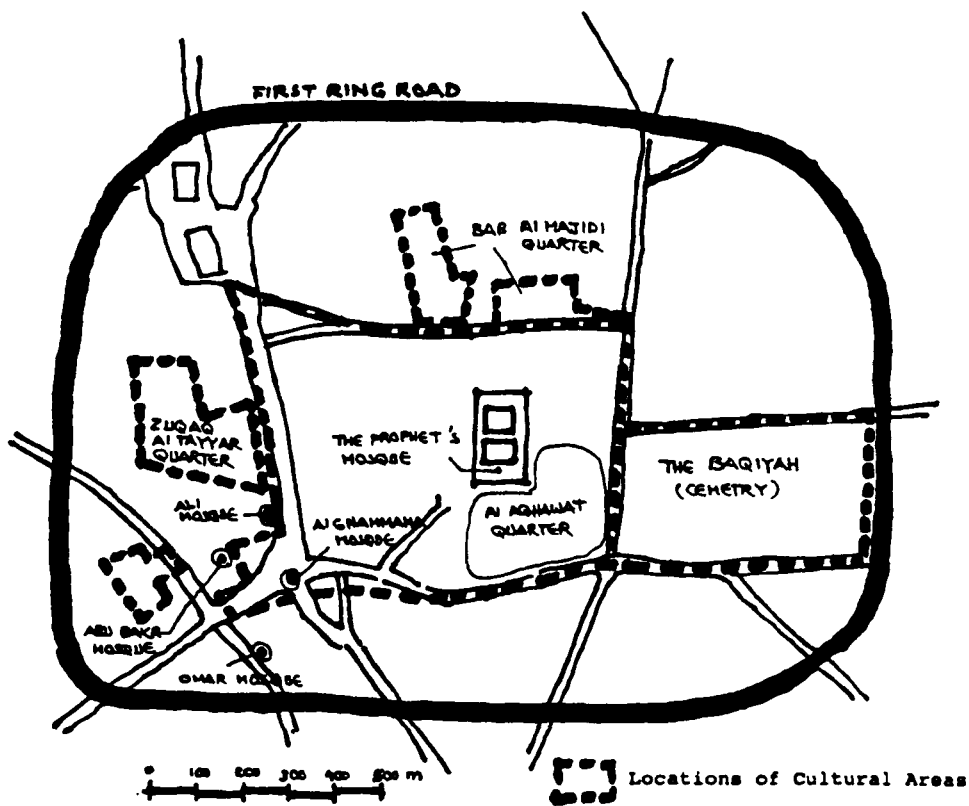
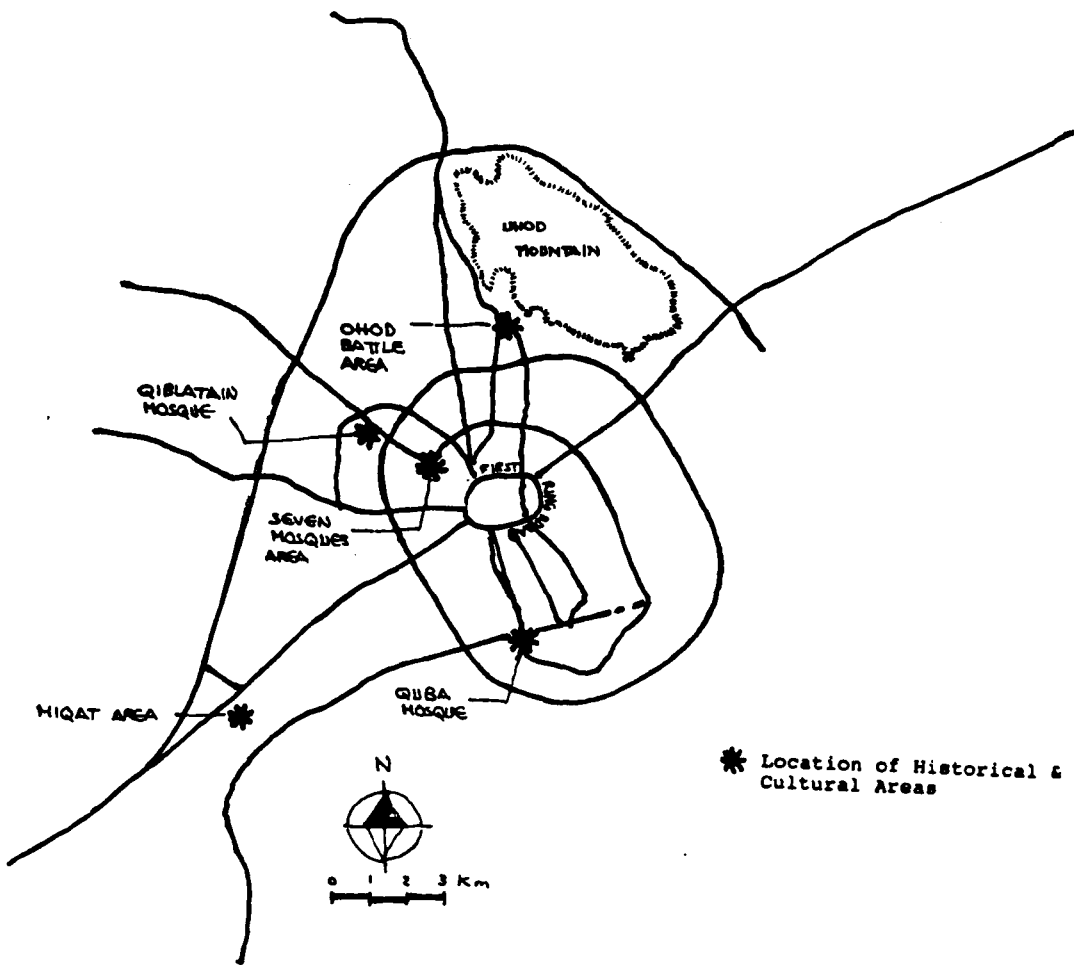


Figure 3.12 : Cultural sites within and outside of the first ring road (MMRA, Report No.13)

3.4.2.6 The MDP making process:

It is the procedural sequences of plan making which is involved here, rather than the substantial matter that has already been highlighted previously. With regard to this concern, the sequence of producing the plans in their documentary form, and the administrative context will be examined, as well as the difficulties and problems faced during the execution process.

Follow-up system:

In terms of ensuring a successful process of plan making a follow-up system was established. Fig.(3.13) presents the relationship between the different levels and administrative functions of the project.

The organizational structure shown above, is composed of four elements; the Deputy Ministry for Town Planning (DMTP) in the central level; Medina Planning and Development Department at the local level. Steering committee and; the consultant administration of the Project in Medina. Sequentially, the consultant prepares the preliminary contents of the reports then submits them to Medina Planning and Development Department (MPDD) who approves the contents with the assistance of the UN experts within 10 days of the submission. Following this step, the consultant prepares and submits a detail plan of research and studies which should be approved by the MPDD within 20 days of the submission. Then the consultant forwards a draft report or part of it supported with related data and studies. The MPDD after a necessary consultation with the UN experts approve them provisionally. Finally, after the provisional approval of the draft report, the consultant prepares the final draft report and submits it to the DMTP to the central level within 30 days of the provisional approval. If any problems of coordination between central and local level or between different governmental agencies in the local level were raised, the steering committee would play a role in solving the problems(MMRA,REP.NO.6). Fig. (3.14) clarifies the sequences above.

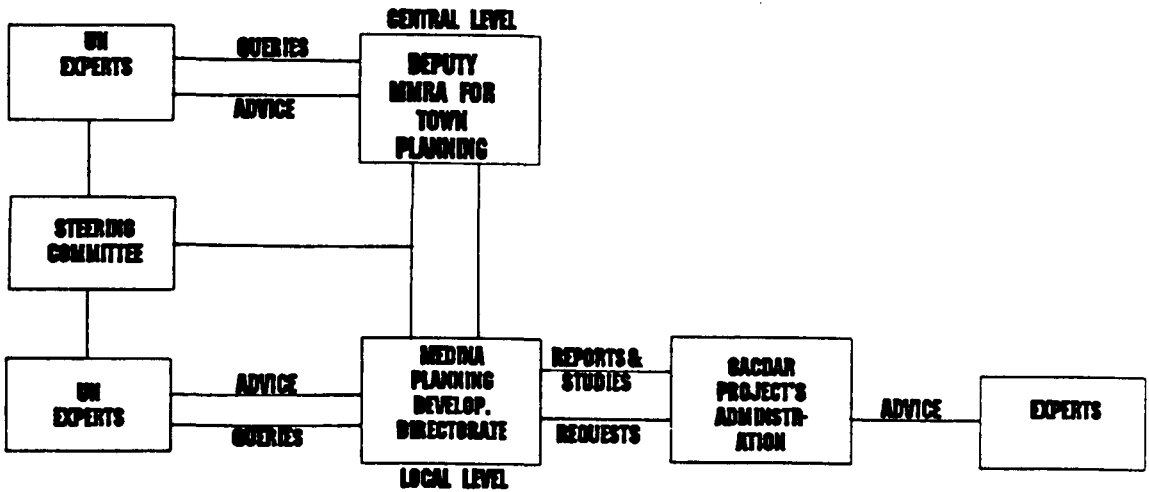


Figure 3.13 : Organization during the consultant period
(source: MMRA, Report No.6)

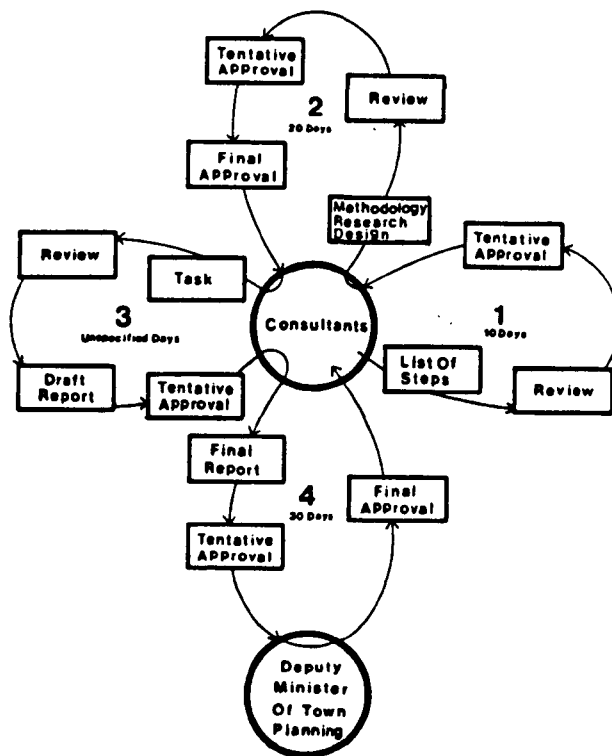


Figure 3.14 : Circle of technical approval of the MDP components during the plan making process
(MMRA, Report No.6)

Work Program of the Project Execution Process and its Performance

The duration of the Project contract was 48 Hijra Months* , starting from the 1st of Jumada Awal, 1397 (1977) fig. (3.15) represents the planned programme of work which included in the time of contract assignment.

In fact, the first year of the program can be divided into two periods; the first three months include the establishment of an office building for the consultants, rest house and the provision of the equipment necessary. The remaining 9 months include the preparation of five technical reports which are, in fact, the basic studies that most of the subsequent work depend on. In addition to the establishment of planning department report. By the end of the second year the proposal was to complete eleven reports including the primary work on Action and cultural area studies reports, and the MDP primary studies while in the third and fourth years the whole Action Master Plans was to be prepared. The final project report was to be submitted and the project completed in Rabi Thani 1401 (1981).

But winds do not always blow as a ship wishes. The preparation of most of the reports and other actions related to the project objectives could not be achieved as planned, even after the programme had been modified. In figure (3.15) the actual performance of the project activities, highlights a problematic situation facing the execution of the programme. In fact, table (3.1) shows the considerable difference between both the date of submission and time period from the signing of the agreement were planned; and the actual date of submission approvals. Differences range between 17 to 30 months. For example the first three reports were planned to be submitted in the fifth month while actually they were submitted in the twenty fourth month with 19 months difference. Hence, the most significant report was report 5 which is concerned with the essential surveys and studies for the MDP action and cultural area plans preparation. The first draft of Report 5 were submitted in the 27th month and got the approval in the 43rd month with 17 and 33

* See Glossary

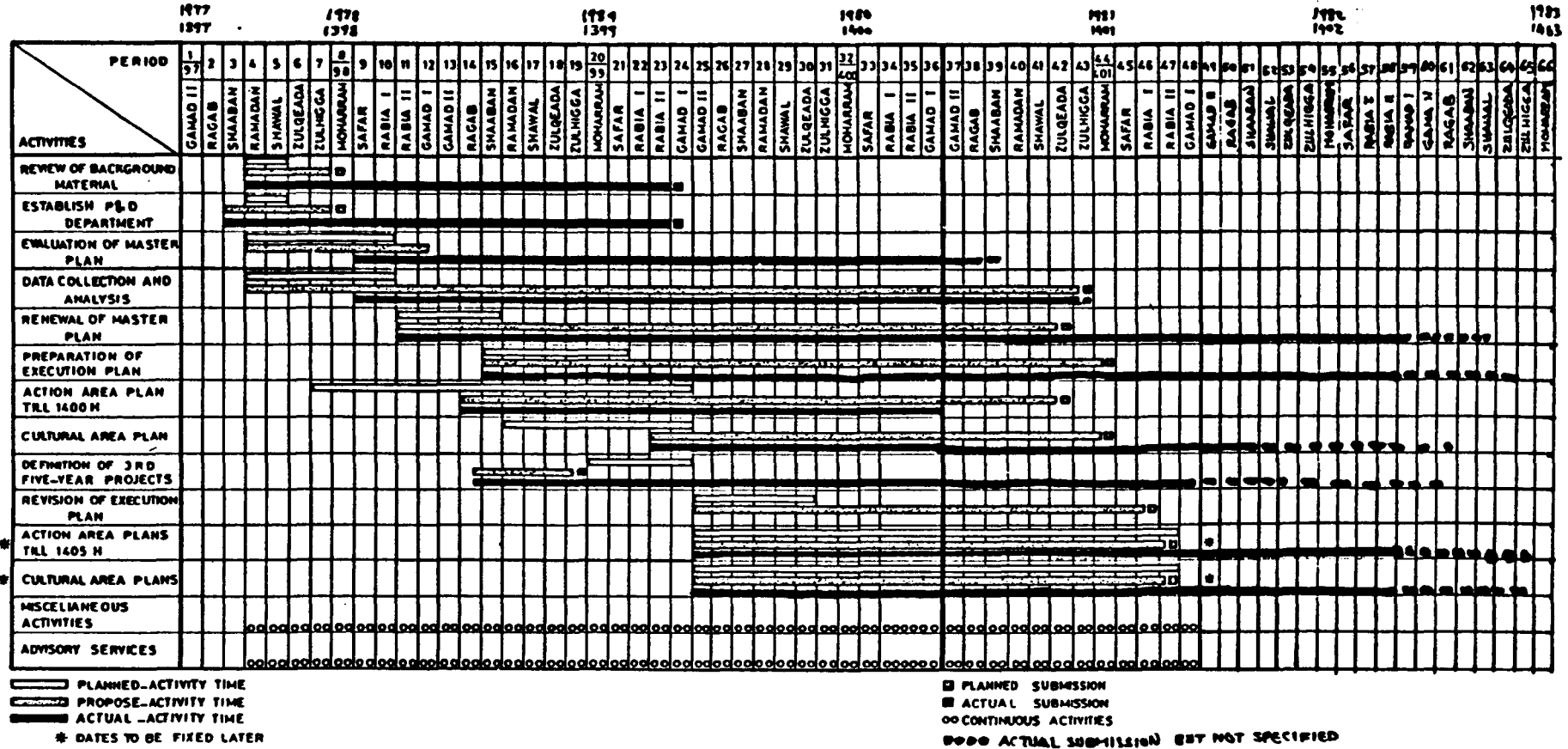


Figure 3.15 : The performance of plans making work programme

No.	REPORTS	PLANNED DATE OF SUBMISSION CONTRACT DATE	PLANNED DURATION FROM	ACTUAL DATE OF SUBMISSION OR APPROVALS	ACTUAL DURATION	TIME DIFFERENCE
1.	REVIEW OF BACKGROUND MATERIAL & DEFINITION OF THE SECOND FIVE-YEAR PLAN PROJECT.	(1977) SHAVAL 1397	5 Ms	APPROVED AS FIRST DRAFT REPORTS IN JUMAD AWAL 1399 (1979)	24 M	19 M
2.	ESTABLISHMENT OF PLANNING AND DEVELOPMENT DEPARTMENT.	(1977) SHAVAL 1397	5 Ms			
3.	POLICY REVIEW PAPER	DHUL-HIJJAH 1397 (1977)	7 M			
4.	EVALUATION OF EXISTING MASTER PLAN	RABI' AWAL 1398 (1978)	10 M	FINAL DRAFT SUBMITTED RABI' THANI 1399 (1979)	27 M	17 M
5.	EXISTING CONDITIONS OF THE METROPOLITAN AREA	RABI' AWAL 1398 (1978)	10 M	APPROVED IN DHUL HIJJAH 1400 (1980)	43 M	33 M
6.	ANNUAL EVALUATION REP	JUMAD AWAL 1398 (1978)	12 M	SUBMITTED IN SHAABAN 1399 (1979) AND APPROVED IN RABI II 100 (1980)	27 M 35 M	15 M 23 M
7.	PLANNING BY-LAWS	JUMAD THANI 1398 (1978)	13 M	SUB. & APP./SAFAR 1401 (1981)		
8.	STUDY OF LAND DEVELOPMENT POLICY	JUMAD THANI	13 M	SUBMITTED/SAFAR 1400 (1980) APPROVED/RABI II 1400 (1980)	33 M 34 M	20 M 21 M
9.	REVISION & UPDATING OF EXISTING MASTER PLAN AND PREPARATION OF MASTER DIRECTIVE PLAN	SHA'ABAN	15 M	(1980) FIRST DRAFT SUB/RABI II 1400 APPROVED/LATE OF 1401 (1981)	35 M MORE THAN 50 M	20 M 45 M
10.	REPORT ON THE EXECUTION PLAN	SAFAR 1399 (1979)	21 M	SUBMITTED WITH REP. 15 IN LATE OF YEAR 1402 (1982)	MORE THAN 60 M	49.9M
11.	ANNUAL EVALUATION PLAN	JUMAD AWAL 1399 (1979)	24 M	APP./MUHARRAM 1400 (1981)	32 M	12 M
12.	ACTION AREA PLANS	DATE TO BE SPECIFIED		DELAYED SEE NO. 18		
13.	CULTURAL AREA PLANS	DATE TO BE SPECIFIED		DELAYED SEE NO. 19		
14.	DEFINITION OF PROJECTS FOR THE THIRD DEVELOPMENT PLAN	JUMAD AWAL 1399 (1979)	24 M	FIRST DRAFT SUB./SHA'ABAN APP. DELAYED 1399 (1979)	27 M	3 M
15.	REVISION OF THE EXECUTION PLAN	DHUL-QU'DAH 1399 (1979)	30 M	LATE OF 1402 (1982); SUB	MORE THAN 60M	30 M
16.	ANNUAL EVALUATION REPORT	JUMAD AWAL 1400 (1980)	36 M	SUB IN: JUMAD AWAL 1400 (1980)	0 M	0 M
17.	DRAFT FINAL PROJECT REPORT	DHUL QU'DAH 1400 (1980)	42 M	DELAYED		
18.	ACTION AREA PLANS	RABI' THANI 1401 (1981)	47 M	SUB. IN LATE OF 1402	MORE THAN 60 M	23 M
19.	CULTURAL AREA PLANS	RABI' THANI 1401 (1981)	47 M	SUB. IN LATE OF 1402	60 M	23 M
20.	FINAL PROJECT REP	RABI' THANI 1401 (1981)	47 M	SUB. IN LATE OF 1402	60 M	23 M

Table: (3.1):The difference, in the process of Medina Action Master Plans making, between what programmed and the actual state.
(source: based on data in the MDP reports).

months difference respectively. Consequently most of the output reports could not be completed, not only by the proposed date but even within the contracted period. This in turn led to the contract period being extended to 66 months from the original 48 months (MMRA,REP.NO.17/20).

Moreover, the MAMP project aimed to assist in establishing the capable institution to manage, in the future, the process of planning. In particular, this aim included a training programme for Saudi employees within Medina and Developing Department. Unfortunately, the program failed to be implemented as proposed "no Saudi counterpart staff could be train during the project period. This training programme could not be implemented because with only the Assistant Director's position, was filled during the contract period." (MMRA, REP. 17/20, PP.168).

However, the main reasons for the delay in preparing the reports and Plans were explained by the consultant to be:

1. The unavailability of the experts at the appropriate moment because of delays in obtaining entry visas to the country.
2. The continuous change of working methods owing to the inconsistency of experts in their work.
3. The difficulties of dealing with people in terms of completing the process of plan making. (MMRA,REP.NO.6)

3.4.2.7 Implementation Process Prescribed by the MAMP:

To identify the implementation as defined and prescribed by the project, several reports, that include an outline about how the plans were to be implemented were examined. This in practice meant all reports which present the Action Master Plans including the MDP, and Action area Plans and cultural Plans, and the Executive Plan all have sections dealing with implementation. In addition one part of the final project report (NO.17/20), also highlights, the importance of understanding implementation, its tools and potential constraints.

However, the implementation, as a part of the planning process, occurred in three contexts: At the level of long term plan; in the Master Directive Plan at the level of short term plans, particularly, in the context of Action and Cultural area Plans; and in the institutional (organizational and legislative) context.

Implementation in the Context of the MDP:

"In planning terms there is a proverbial saying that a worse thing than a bad plan is a plan which cannot be implemented. Hence this point had been well taken while working out the strategies and determination of various priorities in order to facilitate successful implementation of the Plan" (MMRA, REP. 9, 1982. PP.214). This statement heads the section that defines the implementation process to be followed to ensure the conformity of development with the MDP guidelines and recommendations.

At the level of the MDP, the implementation is presented through an explanation of the phasing concept, which is considered as the means of linking the MDP which is a 'long range action orientated guide' with the short term actions of development and construction which are affected by the five year plans.

"It is therefore, essential that the Plan is implemented in phases, divided into not more than five year intervals." (MMRA.REP. P. 216). However, from the purpose point of view, the phasing was presented as a means of updating the plan. "Phasing is by no means a substitute for the up dating of the plan", and that in order to keep the plan valid and viable due to the expected economic and demographic change. It saves the plan from obsolescence by ear marking the time scale for physical development of the areas with high development potentials and priorities. Also, the phasing was introduced as an instrument for preparation of capital improvements programmes and budgeting of essential services and utilities.

"The aim of the five year phase is that the governmental budgets and allocation could be estimated keeping in view the priorities of development in each sector." (MMRA,REP.9, pp.222)

This phasing is a continuous learning process. It is based on the trends that may occur during the plan period due to, not only, the economic and demographic dynamic, but also the functional aspect of the Metropolitan Area and interaction of land uses and various activities.

Phasing of the MDP implementation:

Two types of phasing have been defined in the MDP Report. The first type is one which directs the planning process to be a learning process. The whole period of the MDP (from 1980-1995), is divided into two phases, with a phase in the period beyond.

"It could be said that while the suggestion of two phases of planning aims to implement the urban form and structure which was envisaged by the planners. For Medina, the three phases pointed towards preparation of required budget and financial supports for development programmes affected by the five year Developmental Plans." (MMRA, REP. NO.9, the Arabic version, PP.194).

The second type of phasing contains three phases, i.e. 1980-1985, 1985-1990 and 1990-1995. This type, in fact, attempt to link the general guidelines of the MDP with the specific developments and construction influenced by the five year development plans. "Phasing is therefore, tied to the five year development plans of central or local governments, so that the budget allocations are synchronized with the development programmes." (MMRA, REP.NO.9, PP.216). Moreover, although the emphasis in this type of phasing is on economic and demographic dynamics, it is also linked to the MDP's main objectives which highlight the concept of compact development, directing it around the city center; the position of existing utilities and possibilities of their extensions to various areas; the higher priority of staff orientated projects without neglecting local citizen needs; the relationship between the existing and proposed road network and land uses; impact of the completion of major public projects on the area; and a large number of land sub divisions already approved or in the process. (MMRA,REP.9) (See Appendix A-5, for more specific presentation of the MDP goals and objectives).

The MDP, in fact, expected that by the end of the whole period of the Plan (1995); the entire area within the proposed second ring road would have been developed. It was also expected that the central area within the first ring road would be renewed and developed. Consequently, both expectations for development were considered as a base for gaining the compact and concentric development and enhancing the 'pivotal role' of Haram (The Prophet Mohammed Mosque) and the Central Area as a whole.

In phase I, of the second type of phasing, a particular emphasis was laid on the provision of utilities and services needed to catch up with the rapid growth and expansion of the city. Also, highlighted the importance of starting projects take long time to be completed such as the city parks, recreation areas etc.

"It is hoped that during Phase I, the main network of utilities and services will be basically completed and at least water supply and sewerage be extended to all existing built up areas." (MMRA, REP.NO.9, PP.223).

In fact, the MDP outlined the development programmes according to the three phases, in each specific concerns of development i.e. land use, transportation network, housing, community services and essential utilities.

Hence, the MDP emphasized the concept of flexibility in regard to phasing the development implementation.

"The programming of phasing is only a guideline framework and should not be treated rigidly." (MMRA, REP.NO.9, pp.223)

The Execution Plan:

Remaining at the level of the MDP, implementation had another orientation. Implementation was here introduced in terms of the specific requirements for resources i.e. land, money, time and specified physical location of the projects intended and proposed to be undertaken. It is basically an attempt to translate the framework that includes also, the other local developmental activities.

The execution plan actually is comprised of 299 maps drawn to a scale of 1:2500 in an Atlas, showing location of public services and essential utilities in each action areas and other areas up to and in some cases beyond 410 (1986). In addition it contains financial estimations, and schedule of phasing programme. (MMRA,REP.NO.17/20, pp.111-114)

Implementation within the context of Action and Cultural area Plans:

As mentioned above in section 1.2.4 and 5 these plans for areas which need special and immediate action. In terms of implementation the technical reports concerning these plans include a separate section entitled "Implementation programme" which actually specifies the means whereby implementation of the proposals could be achieved, and the time span.

Mainly, the means of implementation that were mentioned are the administrative and organizational; the financial support and budgeting programmes, the determination of priorities for development projects within these areas; and the legislative and control instruments. The plans identify the time span which is determined within the first and second phase (1980-85 and 85-90).

In fact, the co-ordination of the various governmental agencies involved in the development process was emphasized; the power, that enable the system to take a decision either in selecting the policies and strategies concerning the development or in financing the development, was highlighted. In terms of the determination of priorities the plans recommended the quick acquisition of lands and to be reserved for proposed development especially in the areas where a sharp price rise was expected. The priority was to be given to the transportation and utilities projects scheduled for completion by the end of phase I (1985). The Action Area Plans Reports specified the exact cost estimations of development regarding each governmental agency concerned. (MMRA,REP.NO.12A) Moreover, and in the cultural areas Report, very special attention was given to implementing the proposals. A special high level administrative capacity, and highly skilled experts in Architecture,

Arts, Engineering and Archaeology were strongly recommended as the way of ensuring the successful implementation. (MMRA,REP.NO.13&19).

Implementation within the Institutional Context:

The institutional context here means the legislative and organization aspects. Within this context, the MAMP's reports outlined the required tools for effective process of implementation.

In the "Planning Bye-Laws" Report, several legislative measures and instruments are provided. And in term of raising the importance of the legislation in the implementation process the Report states:

"No matter how efficient and comprehensive these plans may be, they are of no use unless they are supported by the effective tools of implementation. The most important of these tools is the legislation such as laws, by-laws, regulations and executive decisions which enable the implementation of the recommendations of such plans." (MMRA,REP.NO.7, pp.67)

Also, "these regulatory measures play the key role for the successful implementation of the planning proposals by the executing agencies." (MMRA, REP.NO.7, PP.67-8).

In fact the proposed legislation contains four main items; land use regulations (zoning ordinance); sub division regulations, official map ordinance; and regulations of preservation of the buildings and area of special interest (historic, religious, cultural and architectural)⁴.

The implementation was mentioned in the process identifying the optimum organizational structure.

"No plan is self implementing. There must be a well established organization having sufficient qualified staff to administer, on a permanent basis, the whole planning process" stated in the MDP report.

The importance, highlighted by the MDP project of establishing a capable institution that is supposed to understand the continuity of

⁴ See Appendix A-6

the planning process and operate it as such, stemmed from the mechanism of the administration, co-ordination, monitoring and updating, and the sensitivity of cultural and action areas.

In fact, the organization structure recommended by the MAMP consisted of three major components:

1. Medina Municipal Corporation which is in charge of the approval of building and subdivision plans, maintenance of utilities and facilities and, execution of public utilities project.
2. Medina Planning Advisory and Steering Committee which was supposed to play a role in co-ordinating the work of the local and central planning agencies, and between the local planning agency and the other local governmental agencies.
3. Medina Planning and Development Authority Directorate General, which is the focus of the MAMP project concerned. It is supposed to operate the planning process in terms of plan making and execution, and monitoring and updating the performance of the planning process based upon the validity of the plans according to the spatial, economic and demographic dynamics.

However, it was very important to train technical man power in urban planning either in Making Plans or in Monitoring, up-dating and implementing plans. It was one of the consultant's responsibilities, as mentioned in the Agreement, to provide a training programme in order to establish the institution responsible. (MMRA,REP.NO.2) But, unfortunately, as mentioned above, the programme failed to be implemented as planned.

Administrative Mechanism:

The planning process does need a special administrative context to maintain the continuity nature of the process. It is a continuous process of making plans, implementing them and keeping the information and data up-dated, revising and amending the plans, even sometimes educating people on plans and planning. There is also the

need to deal with the interaction different levels of government agencies and with the general public. "Planning administration is somewhat different and complex compared to normal office administration." (MMRA, REP.17/20).

Accordingly, the MAMP project recommended in the long run the establishment of an autonomous metropolitan authority for planning and development which should implement and monitor the execution of urban plans. But at the time of the proposition of the MDP, the Planning and Development Department was recommended to run, as an alternative, parallel to the Amanah (the Municipal Corporation) of Medina as shown in fig.(3.16) (MMRA, REP.NO.2).

Co-ordination Mechanism:

"The most vital element in planning process is the co-ordination of activities of other organization and department working for development of the area." (MMRA, REP. 17/20. PP.185).

Coordination exists in two areas: in the area in which decisions concerning development are taken with high authority of different government agencies; and in the area in which technical recommendations and policies are made. The MAMP project highlighted the important role that could be played by the Steering Committee in the first field of co-ordination while it raised the capability of the Planning and Development Department to manage the technical co-ordination between the technical departments within the different government agencies through exchanging planning ideas and technical information at local level (MMRA,REP.NO.17/20)

Monitoring and Up-dating Mechanism:

The MAMP project, centralized the concept of monitoring and up-dating process upon the need to watch the trends influence the MDP implementability and validity. In the long term side of the Plan, the economic and demographic dynamics should be periodically examined and revised. In the day-to-day actions the trend of the following recommended to be monitored (recorded and analyzed):

DEPUTY MINISTRY OF TOWN PLANNING

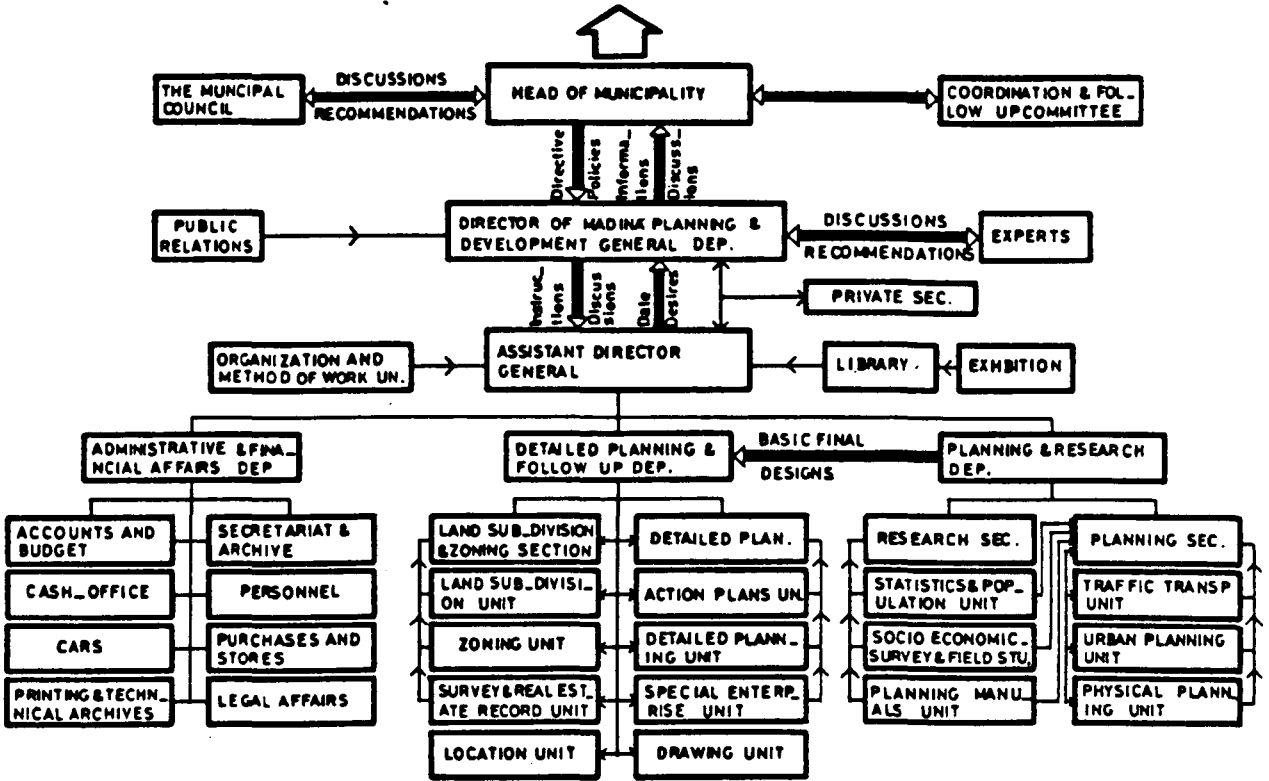


Figure 3.16 : The recommended administrative structure for Medina Municipality, by the MDP (source: MMRA, Report No.17/20)

subdivision approvals, land fill permits, building permits, utility network, aerial photographic survey, traffic counts, vital statistics and, school enrolment. (MMRA,REP.NO.17/20)

In addition, the project specified two types of change could be exercised upon the plans specially the MDP, firstly, "Changes may affect only one or two elements of the plan, and the plan may be adjusted accordingly by the Planners of the Department, without undertaking a major exercise."Secondly:"Changes which are of the nature which may affect all the elements and aspects of the Plan, this may call the 'major change' which will necessitate the modification of the Plan."(MMRA, REP.NO.17/20. PP.189).

Accordingly, the MAMP project raised the importance of adaptation and of a periodic evaluation to make revisions and amendments so that the plan remained valid for all times. This work could be achieved by the Department's regular staff, and if need arose it was recommended that short-term experts were to be engaged to do the annual or periodical assessment and evaluation.

The sensitivity of the Action and Cultural Areas:

These areas were given a special emphasis by the MAMP'S project regarding their sensitivity and the necessity for immediate action. However, because the Plans for these areas were based upon the notion of short range planning which, therefore

makes them unaffected by the unpredictable changes as is the case with the MDP. But potential problems could arise from the need for co-ordination between various government agencies who are actually involved directly in developing these sensitive areas. This situation accordingly leads to the need of "inter-agency coordinative and regulatory enforcement powers" which could be adopted within the Planning and Development Department mentioned above. (MMRA,REP.NO.17/20)

Implementation of the MDP within Land Development Context:

Report No. 8 deals with the context of the land development process in Medina. In fact, the report highlights the importance of land development as a comprehensive framework, including urban planning policies for the governmental intervention. also, the existing conditions of land development policies and process in 1979 was provided. Then the land market in Medina was clarified for the same year. Accordingly and within the legislative framework as existing and as recommended, the MAMP drew a general recommendation for the land development process and policies.

The recommendations involved, firstly, non-tax measures which included acquisition and expropriation, land market control, land use control, land sub division regulations, planned unit development, official map, building and housing regulations, timing/phasing of urban development, public assistance in development activities. Secondly, tax measures which consist of taxation of vacant land, betterment tax. Thirdly, direct public involvement such as public acquisition of land and disposition of through re-distribution, physical development, physical development agencies which may include land bank, land department, physical development department.

Conclusion:

As mentioned in the introduction of this part, it is very useful to draw a general conceptual framework to serve as a guide for data collection. But at the same time this framework should not deter us from adopting any emerging theories in the site. This strategy in conducting the research is based on the notion of grounded theory highlighted by Glaser and Strauss(1967),but with the utilization of the developed current theoretical perspectives,stemming from the possibility of the interrelation between induction and deduction mode of research " The research process is not a clear cut sequence of procedures following a neat pattern but a messy interaction between the conceptual and empirical world,deduction and induction occurring at the same time" (Bechhofer,1974:noted from Burgess,1982:pp.211)⁵ .

So, as a consequence of literature and document review ,in chapter one.two and three, a theoretical background about the question of urban plans implementation was assessed and a description of the Saudi urban planning system,particularly in Medina was carried out. In addition, the Master Plans in Medina were identified,with particular emphasis on the framework outlined by the Master Directive Plan(MDP).

Within this context; it can be stated primarily that most of the urban development activities in Medina either are reflected in official decisions or in an actual physical outcomes have,probably not been undertaken disaccord with the MDP. Moreover, it might be argued on the same bases and backgrounds, that this variance between what was envisaged by the MDP and what actually happened, most likely was a consequence of the great influence of the land market ,which itself was affected considerably by changes in the national economy and in the rate of urbanization changes. In addition, this mismatch was probably a result of the inadequacies of the planning machinery and accordingly inadequate response to the rapid and huge changes due to the weak utilization of control-oriented power (negative power)and action-oriented power (positive power).

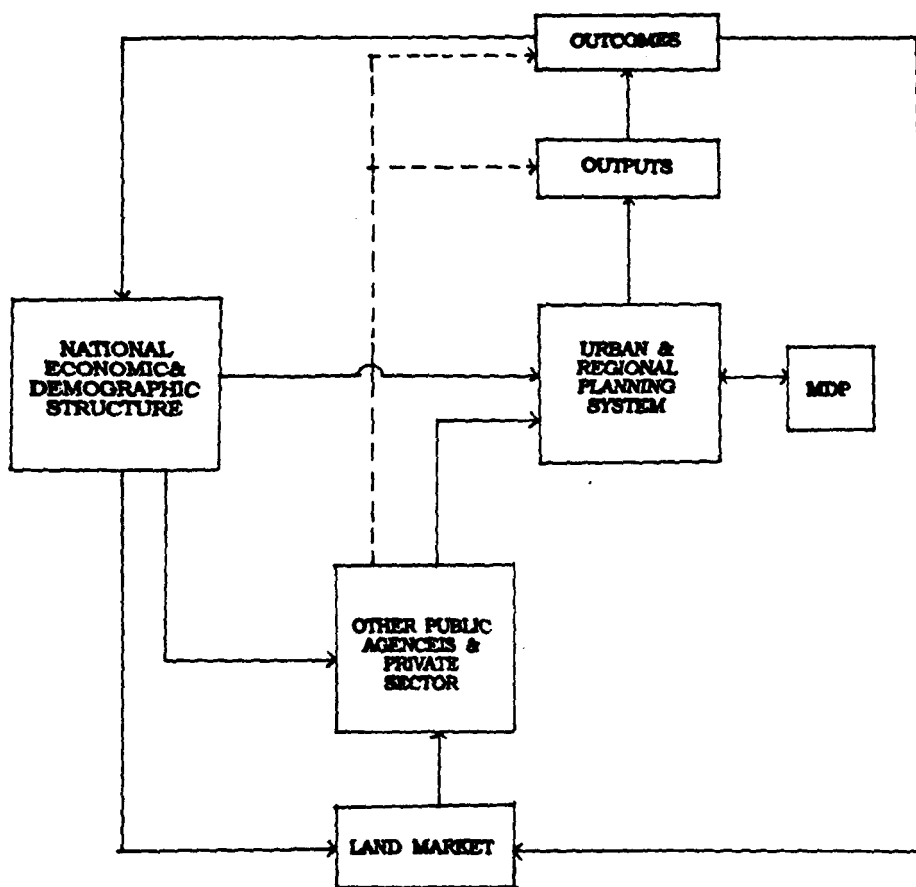
⁵ More explanation of this methodological mode will be discussed in the subsequent chapters,particularly chapter four.

Figure(3.17)shows a hypothetical model,which was developed basing primarily on the broad theoretical background and on the basic image about the Saudi planning system in general and the Medina's in particular.A specific probable explanations can be obtained and as a result, we can create a primary image of the problem,that the present study attempts to investigate. It is not only to verify the content of this hypothetical model, but essentially to develop and improve it according to theories might emerge during the course of fieldwork at the site. Thus,the main purpose of this model is to state the problem which is the aim of the present study, and to serve as a general guidance for data collection.

The model,in fact, implies a relationship between various elements within the context of urban development process in Medina,in which the implementation phenomenon of the MDP can be observed.

The implementation process assumed would appear through subsequent effects, which start with the official decisions,of Medina municipality representing the local urban planning machinery, either to initiate development or to grantpermission for development. This effect may involve textual, graphic-design-based or map-based decisions, which could be classified here as (outputs). These outputs;it is assumed will lead to actual effects in the real world, i.e. by establishing buildings, bridges, roads, parks, etc. This stage of effect may be classified as (outcomes). In addition, the model hypothesized that some outputs and outcomes may be effectuated without going through the official process(i.e. getting a permission from Medina municipality or acting in coordinate on with her). However,it was hypothesized that most of the physical outcomes have occurred actually in Medina urban environment, probably would be inaccordance with what was envisaged by the MDP. In fact, these unconformity was expected to appear ,for example,in the urban physical expansion and as a consequence,in the development of the essential utilities,in terms of their physical location and time compared to the proposed phasing programme by the MDP. In addition,the lack of conformity was expected to occur in the pattern of land use allocation and road network development .

It is assumed that these effects are the results of the interaction between other public agencies concerned with urban development and



-----> Action without a contact with ur planning system

Figure 3.17 : Analytical model for the field work

private agencies and individuals from one side with urban and regional planning system which possibly does not have an appropriate power, either positive powers through the public projects could initiate or negative powers through the development control. On the other side these effects are consequences too, of the interaction between all factors involved in the urban land development process including the urban planning system, and the force of land market, which is affected considerably and directly by changes in the national economy and demographic structure and change, in addition to the direct impacts of the local urban developments.

At this point basing on the model it can be expected that if the urban planning system uses the powers mentioned above in accordance with the MDP, the actual urban development will reflect the MDP's outlines. The most important factors internally within the urban planning system are assumed to be the effective management of the planning, namely, plan making, implementation and monitoring process which depends to a large extent on the skill and attitude of the employees in the system in addition to the effective coordination with other governmental agencies either in the central or local level. Otherwise, the land market will be the dominant factor that influences the availability of land for development and consequently, the accordance and conformity of possible developments with the MDP recommendations

Finally, the model implies a hypothesis that if the urban planning machinery is not the dominant force or factor which influences and directs the urban land development, many decisions (outputs) and actual effects (outcomes) by actors other than the urban planning system, will appear in the real world without going through the system and consequently will be influenced by the direction of the land market, which very likely will not conform with what was proposed by the MDP.

It is the time now to see what actually is going on in the field; in Medina urban environment and to examine why things are happening as they do.

PART TWO

EMPIRICAL WORK

CHAPTER FOUR

METHODOLOGY

This chapter aims to specify the appropriate logical methods and approaches that were adopted for the present research design. In fact, identification and justification of qualitative method will be provided. The case study will be highlighted as the most proper strategy not only in the qualitative method of research but also in urban planning process regarding the subject matter of studies. Moreover, the question of evaluation is to be discussed particularly in regard to the concept of conformity and success or failure in urban plan implementation. Finally, the actual process of the present research progress in the field will be described according to the adopted design.

4.1 Qualitative method:

In a case such as the present study, namely, Medina Directive Plan implementation, a qualitative method which is flexible, unstructured and open-ended method (Burgess, 1962) is likely to be most appropriate.

In fact, general theory has not developed in the field of planning process (Cooper, 1982), particularly in the process of implementation which still falls within the two perspectives, i.e. the bottom-up and top-down approaches. In addition to the possibility of the contextual influence on these approaches, where they evolved within highly industrialized democratic societies. While in our case, the implementation phenomenon will be observed within a developing and authoritarian centralized administrative context (See chapter 2). Moreover, the lack of relevant studies and possible shortage of accessible information about planning processes in Saudi Arabia especially in Medina raises the need to generate a new idea and construct the relevant concepts from the field in which the implementation of Medina can be observed. "One of the key strengths of field research is the comprehensiveness of perspective it gives the researcher. By going directly to the social

phenomenon under study and observing it as completely as possible, you can develop a deeper and fuller understanding of it." (Babbie, 1986: PP.239)

The purpose of field research or qualitative research is not only to collect data, it is also to be used for generating theory.(Burgess, 1984; Babbie and Miles and Huberman, 1984) "Qualitative methods, it is argued, allow researchers to get close to the data and provide opportunities for them to derive their concepts from the data that are gathered." (Burgess, 1984: PP.2-3).

Field research is also easier to adapt to any change, even a change in the conceptual framework, according to the actual situation of the site where the phenomenon (which is Medina MDP implementation in the present study) under study exists. Burgess states that: "strict and rigid adherence to any method, technique or doctrinaire position may, for the field worker, become like confinement in a cage. If he is lucky or very cautious, a field worker may formulate a research problem so that he will find all the answers he needs within his cage. But if himself is in a field situation where he is limited by a particular method, theory, or technique, he will do well to slip through the bars and try to find out what really is going on." (Burgess, 1982: noted from wax, 1971: PP.10).

Given this fact about the field research, ongoing process which involves monitoring the research design and its applicability, will be a distinguishing feature (Burgess, 1984 and Babbie, 1986). In this continuous process a notion of multiple strategies may be utilized in adapting the proper theories or techniques, which means a synthesis of the current existed theories could be developed and a combination of data collection techniques such as participant observation, in depth, unstructured or semi-structured interview, key informants¹, and documentary review and survey.

¹ Key informants: "is simply some one who, by virtue of his particular position in the society, knows a great deal about the subject of the research. It may be that his experience is to know who knows, so that he refers the research workers to other more knowledgeable than himself." (Margaret Stacy, 1969: PP.47).

4.2 Case Study Strategy:

Although the case study has been criticized as strategy which cannot provide a basis for scientific generalization, it has been adopted widely in the field of urban planning, particularly planning process, as the most appropriate strategy for conducting a successful research (Cropper, 1982 and Masser, 1982). The case study was described as strategy that: "allows the researcher to examine the subject matter at a level of detail that no other strategy will allow, that is, to a depth appropriate to the nature of the subject matter." (Cropper, 1982: PP.343).

Furthermore, the case study in the field of urban planning is very useful because the researcher can examine the phenomenon of the planning processes by focussing on the sequence of events that take place over time within the case study (Masser, 1982 and Yin, 1981). It should be highlighted here that the historical approach may be utilized in the process of examining the case study (Cropper, 1982; Masser, 1978 and Healey et al, 1982). Yin (1984) emphasized other features in the case study definition such as the vagueness of the boundaries between the phenomenon under study and the context, in addition to the possibility of using multiple sources of evidence.

Hence, in terms of choosing the most appropriate cases to examine the processes in urban planning, the notion of continuous cyclical process of research is highlighted again. "This show that case study research follows a cyclical process during which an initial conceptual framework is constantly refined as a result of the findings of the analysis. Wynn's diagram also draws attention to the ways in which case study material is evaluated during the course of the research with reference both to practical questions such as data availability and criteria related to their appropriateness to the study in question." (Masser, 1982: PP.10). This means that, as mentioned above, the cases in addition to generating questions and hypotheses interact with each other in an on going process of monitoring and following up the applicability and validity of the research design to the actual state in the site. (See figure 4.1)

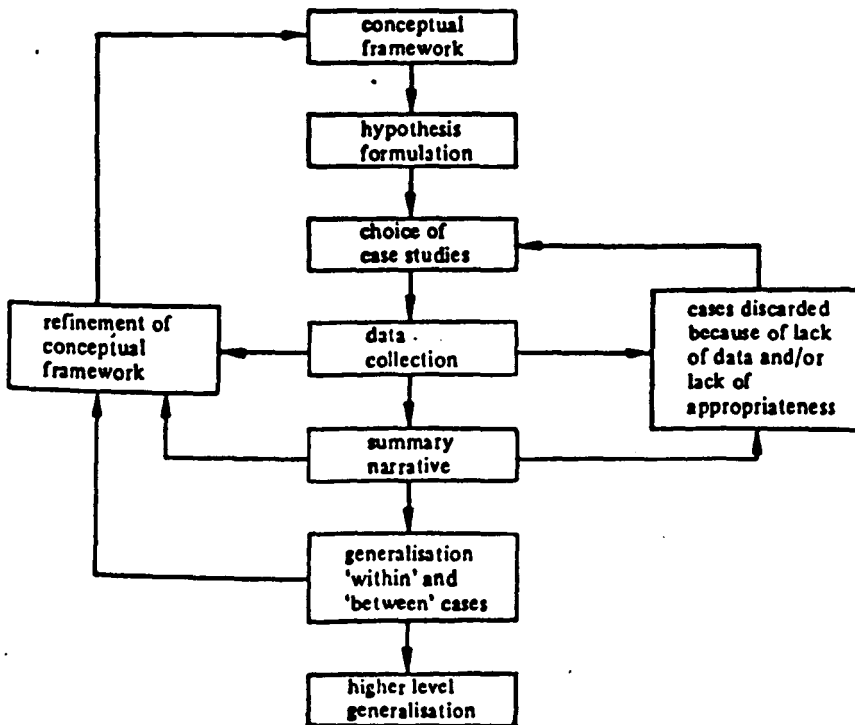


Figure 4.1 : The case study process
 (source: Masser, 1982)

4.3 The Question of Evaluation :

The evaluation idea is likely to be raised here because the research involves an examination of the degree of conformity. However, evaluation was defined as a study which aims to measure the effects of program, facility, treatment, performance and the like against their goals in order to improve or refine them (Weiss, 1972 and Lincoln and Guba, 1986).

In the present study neither the goals achievement aimed to be measured nor the success or failure sought to be assessed. Because, the main goals of the MDP is a subject of long term impacts which may need particular methods and techniques, in addition to the strong relationship between impacts and subject matter of the Plan. Similarly, the notion of success or failure, which, in addition to lack of consensus in their concepts, it could drive us to the same field which is out of the present study's focus. For more clarification, the following categorization of actual effects in the urban planning system activities regarding urban development in Medina. The first category is the primary decisions which may be represented in textual graphical and map form (may be classified as outputs). The second category is the actual primary effect in the site, i.e. buildings, parks, roads, etc. (may be classified as outcomes). The third category is the strategic effects which involve the achievement of the intended main goals of the community which the MDP in Medina assumed aimed to achieve them (may be classified as impacts).

So, for the sake of the study purpose which is to examine how the implementation process is going on in the real world; the focus will be on the outputs and outcomes as a departed points. Accordingly, the concept of conformity, which does not necessarily mean a success or failure, will be utilized to provide a base or reference for the question of why, namely the activities of urban development occurred in a certain pattern?

4.4 The programme of the field research conduction:

Within the above outlines and methodological bases, a programme for the empirical works and activities was formulated based on the notion of ongoing process of learning through sequential steps. Figure (4.2) shows the major elements that classified the specific sequential activities were to be performed during the course of the field work. The major classifications of the research activities were:

- a. Research design formulation which was based entirely, in the first stage, on the relevant available studies about the subject matter of the present study, whereby a conceptual framework primarily developed. And the methodological matter regarding the qualitative method and case study strategy. This activity, in fact, involved a continuous process of consultation of relevant studies from one side, and monitoring the actual performance in the field on the other side.
- b. Implementation of the formulated and reformulated research design.
- c. Analysis and evaluation of data during the course of collection and at the end of field work period.

The concept of 'ongoing process' or 'continuous process of learning' suggests that one of the major fruits of the research is the light that could be shed about the fields, new ideas, dimensions and aspects relevant to the subject under study. Which, in fact, involves a suggestion of further research, that may continue through the ongoing process could be seen in figure (4.2), until a general theory is performed. (Merton, 1969). Regarding the time scheduling, the time period of the field work was divided into three stages. The first stage aimed to discover and develop an understanding of the site and context. Additionally, the aim involved a determination of potential interviewees (Their numbers, relevance of their jobs to the subject under study), in addition to reading the MDP reports and documents. The second stage was designed to collect the relevant secondary data, (documents, reports, minutes of meetings, magazines, newspapers, plans....etc), and review and analyze them to determine

the degree of conformity in the effectuations have been performed (outputs and outcomes). This step with first one were designed to be a ground for the process of determining the appropriate interviews and reformulating the conceptual framework, in addition to determining the suitable case studies and analyze them in regard to their conformity with the MDP outlines and recommendations.

After these two stages there was a break to review data, organize and analyze them, and a return trip was made to Britain for a month to allow time for consultations with the advisor and for the research design to be modified.

The third stage was designed to implement the advanced interview with proper interviewees, and were determined as a consequence of the first and second stages.

However, the actual performance of the field work was, regrettably, different because of some difficulties and constraints.

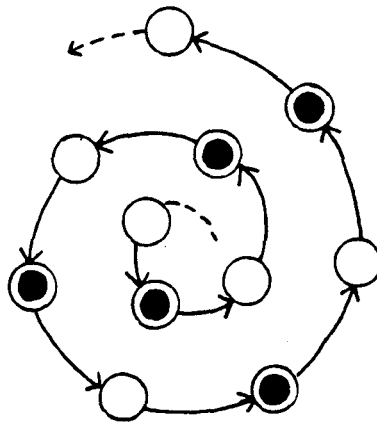
In terms of describing the actual performance of the field work, four elements will be discussed; sampling which includes key informant and interviewing interaction with document reviewing, case studies selection and coding and analyzing during data collection.

4.4.1 Sampling strategy:

In qualitative method and field work research, the sampling is commonly involved what is labelled as a non-probability sampling. The sampling could be judgmental and opportunistic either of actions, events or people. Also, sampling may be a snowball type which, "involves using a small group of informants who are asked to put the researcher in touch with their friends who are subsequently interviewed, then asking them about their friends and interviewing them until a chain of informants has been selected" (Burgess, 1984:pp.55). In addition, sampling could be theoretical which is defined as, "the process of data collection for generating theory whereby the analyst jointly collects, codes and analyses his data and decides what data to collect next and where to find them, in

ACTIONS	TIME SPAN				
	STSGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5
FORMULATION & REFORMULATION OF RESEARCH DESIGN	①	②	③	④	⑤
ANALYSIS & FINDINES EVALUATION		①	②	④	⑤
IMPLEMENTATION OF THE RESEARCH DESIGN	①	②	③	④	⑤

Figure 4.2 : The ongoing process of research activities



- Interviews & Document reviews (Interviewees either the same who was interviewed in the first time or others depend on their ability to answer the new generated questions).
- Generated questions basing on the previous interviews and document reviews.

Figure 4.3 : The recurring process in the interviewing technique.

order to develop his theory as it emerges". (Burgess, 1984 noted from Glaser and Strauss, 1967:pp.55)

Key informants:

As mentioned above in section 4.1, the key informant is a technique which was developed to be as a bridge which may transfer the researcher to relevant data, people and next appropriate step in the field work. Accordingly, the first step in this regard was to find a key informant who could give background information about the context and identify other key informants and the location of secondary data. The chosen person known to me personally was currently working in the office of Medina Municipality Mayor. He was very helpful in drawing the next steps of the field work, determining the other key informants and primary background about the context and location of data needed.

The other key informants were the Deputy Mayor for technical affairs who is holding this job for at least ten years, and the Director of General Planning Department. These interviewees provided the primary information for subsequent interviews and data gathering.

The interviewing technique:

For the sake of reliable and valid information, and to generate new ideas, questions and concepts; a continuous recurring process of actions were performed as shown in figure (4.3). The idea of this process based on the interaction between what could be got from documentary sources of data and from the interviews. The review of documentary sources and other key informants. The review of documentary sources helped in generating ideas and questions for the subsequent interviews. Then interviews were performed with two major key informants who gave a comprehensive and good background about the context, data availability and accessibility and ideas about the subject under study, in addition to other useful key informants. Again another new documentary review was achieved which was a base for generating other new ideas and questions to be asked in the subsequent interviews until a recurring chain of research actions

led to some extent to a satisfactory insight about the MDP implementation process. However, this continuous process of data collection was not separated from other levels of continuous process was clarified in figure (4.3).

Regarding to the questions, were asked during the interview courses, were in fact, unstructured. So, the interviews were conversations and dialogues more than formal interviews, which meant that other new questions could be and were generated during the interviews themselves. (See appendix B-2 for interviewees were interviewed).

4.4.2 Coding and Analyzing During Data Collection:

This process is very useful in organizing the data which may be collected from the field in regard to the conceptual framework. In addition, it helps in adopting and examining any new ideas and hypotheses during the course of data collection "it rules out the possibility of collecting new data to fill in gaps, or to test new hypothesis that emerge during analysis; it tends to reduce the production of what might be termed 'rival hypothesis' that question the field workers routine assumptions and biases, and it makes analysis into a giant and overwhelming task that both demotivates the researcher and reduces the quality of the work produced." (Miles and Huberman, 1984: PP.49).

So, on this basis, the primary conceptual framework was translated into codes "which are abbreviations or symbols applied to a segment of words, most often a sentence or paragraph of transcribed field notes, in order to classify the words." (Miles, 1984)² .This technique was very useful and helpful in organizing and clustering the notes and were produced as a consequence of interviews, and the documentary and graphical/map based data collection. It allowed me to undertake primary analysis of the data, and generate new questions and ideas to be examined.

² See appendix (B-1), for more detail about the model of coding developed for the present research in addition to a sample of using this technique on the notes were produced during the course of field work.

Practically, the coding technique was implemented by putting the codes, the codes were developed according to the conceptual framework, in the left margin and in the notes or documents to indicate to the cluster who it belongs to. In addition, any new ideas, analysis or comments were put in the right margin (these ideas, analysis or comments were actually emerged during the course of data collection).

4.4.3 Case studies selection and manipulation:

The subject under study is the MDP implementation process, and the MDP itself is a case study in regard to the urban planning experience in Saudi Arabia. It could be defined as an "embedded case study" which has units or subunits which could be considered as sub case studies within the major case study. "For instance, even though a case study might be about a simple public program, the analysis might include outcomes from individual projects within the program (and possible some quantitative analysis of large numbers of projects)." (Yin, 1984:pp.44)

This fact raises the question of macro and micro concept which implies hierarchical interrelationship between units in the process of any social analysis(Etzioni,1968).The main purpose for this process as Etzioni argued".is the heuristic value that studies of micro-units have for the exploration of macroscopic ones,and not the validation of propositions about macroscopic processes on the microscopic level."pp.50

In the present study two types of cases will be dealt with,. The first type involves long term general proposals ,which may represent the macroscopic level. These programmes,in fact, imply in their content outlines for the whole society of Medina(see section 3.4.2). These programs,for example,included the land use structure,essential utilities and services,transportation and traffic network,housing..etc. In addition to the phasing programme which is a time framework to orgnize the process of implementing these long term proposals.In this regard the simplicity of the proposal and availability of the data were the criteria for selection process.In

addition to the content of the programmes that potential to serve in hypotheses verification and generation process Three cases were chosen the phasing programme the land use structure, and the traffic network proposal.

The phasing programme, in respect to subject matter, was expected to serve in observing how the process of planning has been and being operated. Where the phasing programme suppose to play an essential role in following up the plan implementation and updating process In addition to directing the various developmental activities by different actors and coordinating their efforts according to the proposed time framework, particularly activities aim to establish the essential utilities and services. Beside that ; the land market influence can be observed through the examination of the urban growth conformity with the phasing programme. while the land use structure was expected to provide means for observing the effectiveness of the positive and negative power, which assumed will play a significant role in controlling the urban development activities. Finally, the traffic network in addition to the previous proposals were assumed will serve in examining the relationship between different actors, specially, between the public actors in the process of coordination and communication. Furthermore, all the programmes were expected to be useful in identifying the phenomenon of unauthorized developments either by private or public actor.

However, each of these proposals is actually a programme which does have many sub cases (projects and small programmes). This leads us to the second level of cases, which may represent the microscopic level. They involve a particular short term programmes and specific projects. Several short term programmes such as Western Harrah Action Area, Central Action Area, Quba and Sayidna Hamzah cultural areas were proposed to be studied. In addition to several specific projects such as Central Grocery Market, King Fahad Hospital, Al Medina Public Park, Intermediate Ring Road, Second Ring Road, Manakha Tunnel and Medina Main Entrances Project. But unfortunately, because of lack of time and other difficulties only The Western Harrah Action Area in regard to short term programmes

and four specific projects (Al Medina Public Park, the Second Ring Road, Manakha Tunnel and Medina Main Entrances) were selected this purpose.

The usefulness of the microscopic level of cases in assesting the research objectives may occur in the field more than to draw it hypothetically "Actually,the tightness of the relationship among the processes of the various units is a matter that must be established empirically and cannot be decided ex cathedra."(Etzioni,1968:pp.50).

The main criteria for sub case selection were data availability and accessibility (in terms of documentary form or availability of people involved in the programme or project supervision either in formulation or in the implementation process), comprehensiveness, i.e. cover more than one type of land use and include more than one public or private agencies, completion which means that the programme or project to be selected was preferred to be completely implemented.

CHAPTER FIVE

PHASING PROGRAMME

In this chapter the first macroscopic case will be examined. In fact, the proposed phasing programme by the MDP is to be identified, then the degree of conformity of the actual urban growth and development will be examined. The factors influenced the found performance will be analyzed accordingly.

5.1 Identification of the proposed phasing programme by the MDP:

In view of the rapid change of the economic structure, urban growth, and demographic change a specific programme was designed to implement the MDP's outlines and recommendations through sequential phases. Two types of phasing were defined by the MDP. One divides the implementation into two phases. The first phase, in fact, represents the actual time span of the MDP, which is 15 years (from 1980-1995). The second phase is the period beyond 1995, based on the fact that the ecological nature of the city has an ultimate capacity for future expansion, which consequently led the MDP to propose a boundary for the Metropolitan Area (see fig.5.1). Accordingly, the area within the Metropolitan Area Boundary which estimated as 85000 hectares, actually, is composed of two major developable areas: a) area which was incorporated for the MDP's outlines and recommendations during the Plan period up to 1995; b) area that was designed as 'controlled Area' and proposed to be planned and prepared for developments after the plan period (beyond 1995)¹

The other type of phasing proposed by the MDP concerns the plan period (from 1980-1995). It divides the plan time frame into three five year phases linked with the National Five-Year Plans. Particularly with the third, fourth and fifth National Plan (1981-1985, 1986-1990 and 1991-1995 respectively). Figure (5.1), shows locations and boundaries not only the three phases but also the

¹ There is undeveloped area within the Metropolitan Area Boundary such as wadis, mountains and harras amount to 13,500 hectares. (This information and the above adopted from REP.NO.9: PP.130).

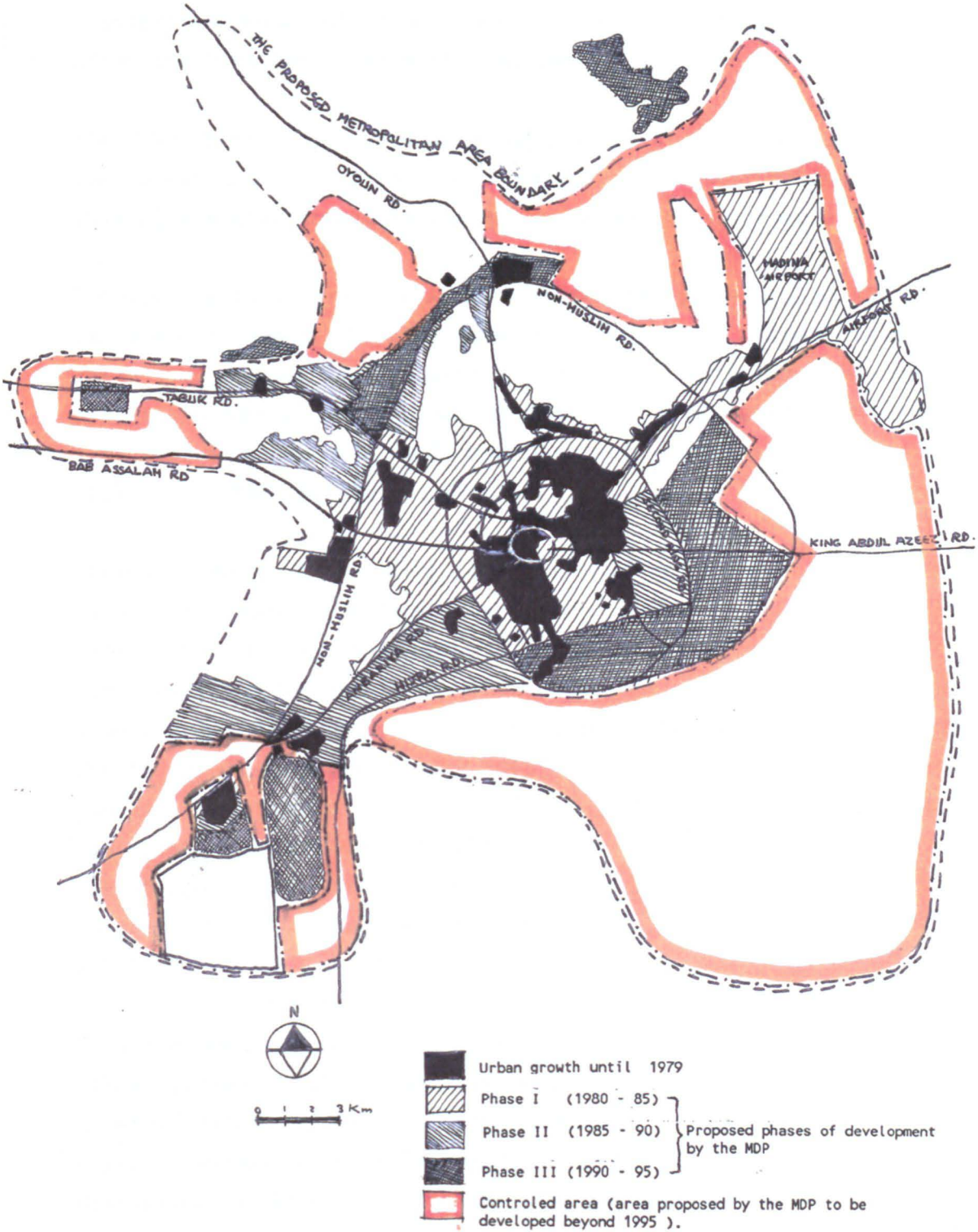


Figure 5.1 : The proposed phasing of development by the MDP
 (source: MMRA, Report No.9)

'controlled area' which was proposed for the future developments after the Plan Period as mentioned above.

The idea behind the phasing programme is to keep the plan valid throughout its period and as a base for the Metropolitan future. Phasing was also to assure the MDP's successful implementation:

"Phasing is by no means a substitute for the up-dating of the Plan. It, however, saves the Plan from obsolescence by earmarking a time scale for physical development of the areas with high development potentials and priorities and enables the preparations of capital improvement programmes and budgeting of essential services and utilities. (MMRA, REP.NO. 9: PP.216).

Thereupon most of the long range programmes of urban developments such as water supply, sewerage disposal system, (SDS) telecommunications, electricity supply and so forth were outlined and designed according to the phasing framework. However, the major function highlighted by the phasing programme was to guide urban growth and development, taking into account not only the demographic and economic factors but also the city form "The basic and most important consideration for phasing was the compact development of the Metropolitan Area, with focus at Al-Haram (The Prophet's Mosque), directing the investments around the city center." (MMRA, REP.NO.9: PP.217).

With the emphasis of the phasing programme, on the urban growth. "These phases should be used as a guide to ensure controlled urban growth." (Ibid, PP.219); the urban growth, in particular the urban physical expansion will be the main focus in this case. Also, the discussion in this case will include an analysis of the essential utilities networks proposals and their actual effectuation; as they have a significant impact upon the direction of urban growth as mentioned by the MDP "It should be noted that one of the effective devices of keeping the city growth and its directions under control is the establishment of public utilities and provision of services in the areas where development is scheduled according to the phases

laid down for growth and to keep the other areas unserved by public utilities until their turn comes." (MMRA, REP.NO.8: PP.70).

5.1.1 The urban physical expansion:

Two indices will be utilized here to analyze the conformity of the actual urban physical expansion with what was envisaged by the MDP. First the actual conversion of undeveloped land into built-up areas. Second, the process of preparation of undeveloped land for urban development, i.e. land sub divisions. Moreover, the section will include an analysis of the urban physical expansion mechanism. In other words it will investigate what factors influence the direction and form that urban area and developments tend to have with particular attention to the role of the MDP as public policy in affecting the pattern of the urban physical expansion.

The first step is to describe the MDP's outlines in respect of the phasing programme, by looking through figure (5.1). The figure, in fact, manifests three materials regarding the phasing concept: (a) locations and boundaries of the three proposed phases along the Plan period; (b) Control Areas which is the area that should be prepared for development beyond 1995; and (c) the boundary of Metropolitan Area, as proposed by the MDP. However, it can be noticed from the way the phases' areas were designed and allocated, that the MDP tried to apply the notion of the compact and concentric development. In fact, most of Phase I area falls within the Second Ring Road, and extends partially from the Northern West of the Second Ring Road towards the Non-Muslim Road and along Matar Road from the Northern East. While Phase II and III were distributed and allocated in different separate parts within the whole compact area of the phasing programme.

In view of this allocation, the MDP emphasized the priority of developing lands within the Second Ring Road as a first stage by filling up the vacant pockets which were a phenomenon. Also, by encouraging developments in the areas immediately adjacent to the zones where utilities are available, in addition to any actions and projects which could help in deferring the urban sprawl and guide

the development and expansion of the area according to the phasing programme to achieve the development pattern desired.

Let us now turn to the second step. To examine the actual developments that have happened during the last ten years, i.e. the period of first and second phase was proposed by the MDP, and compare these developments with what were proposed in the MDP. In sum, to determine the degree of conformity between what actually happened and what was envisaged by the MDP.

Figure (5.2) and (5.3) may provide and shed some light about that. In fact, figure (5.2) clarifies the expansion of the built-up area and its growth; compared with the proposed phasing of urban physical expansion. The area is indicated by solid black shading points to the urban physical expansion at the time when the Consultant started making the MDP in 1979. The area which is colored brown indicates the recent expansion of the built-up area (urban physical expansion in 1990). The deviation from the proposed phasing programme is striking. Several developments have occurred in the area of Phase III (1991-1995) such as the urban area in the near south and north of King Abdullal Azeez Road to the south and east of Medina (Al-Khalediyah area and a part of eastern Harrah, which was sub divided and built up). Also, the built up areas fall to the south of the Second Ring Road within (Awaly, Qurban and Quba areas). Moreover, some other developments have taken place outside the whole phasing areas but within the Metropolitan Boundary. For instance, first Difa'a district of the west of Medina Airport, some areas in the north of Ohud Mountain (mostly National Guard employees traditional housing), other areas along Tabuk Road (Governmental Office and industrial buildings) and along Anbariyah Road near to the industrial town (low income district in A'bar Ali Area), and the extension of Hijjrah district in the southern west outside of the Second Ring Road. In the contrary, many areas were left without development (vacant lands) within the I and II phase of the proposed phasing programme.

In the same manner, many sub divisions have been implemented in a pattern which does not conform to the MDP. Figure (5.3) displays

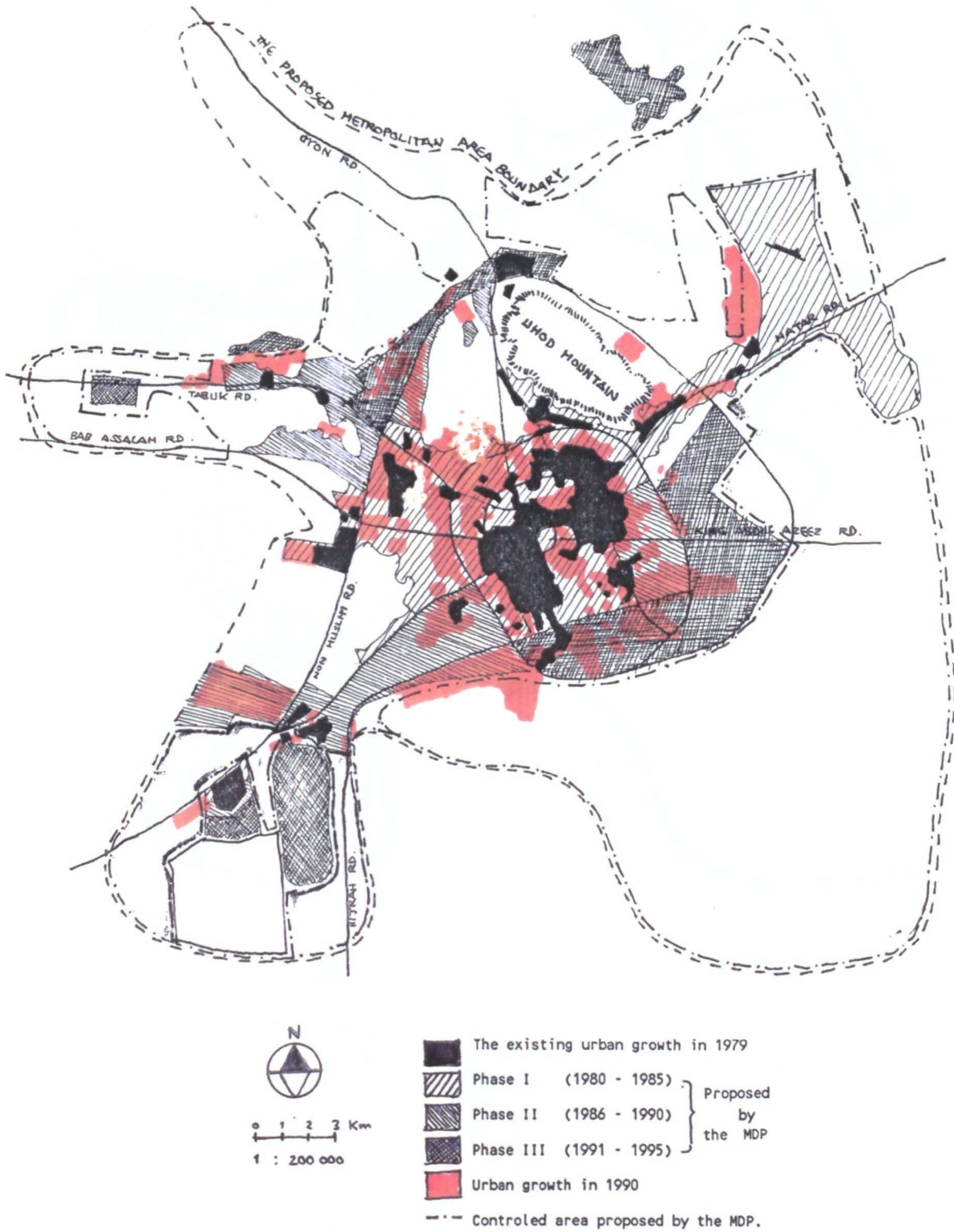


Figure 5.2 : Actual urban growth pattern comparing with phasing of urban growth proposed by the MDP

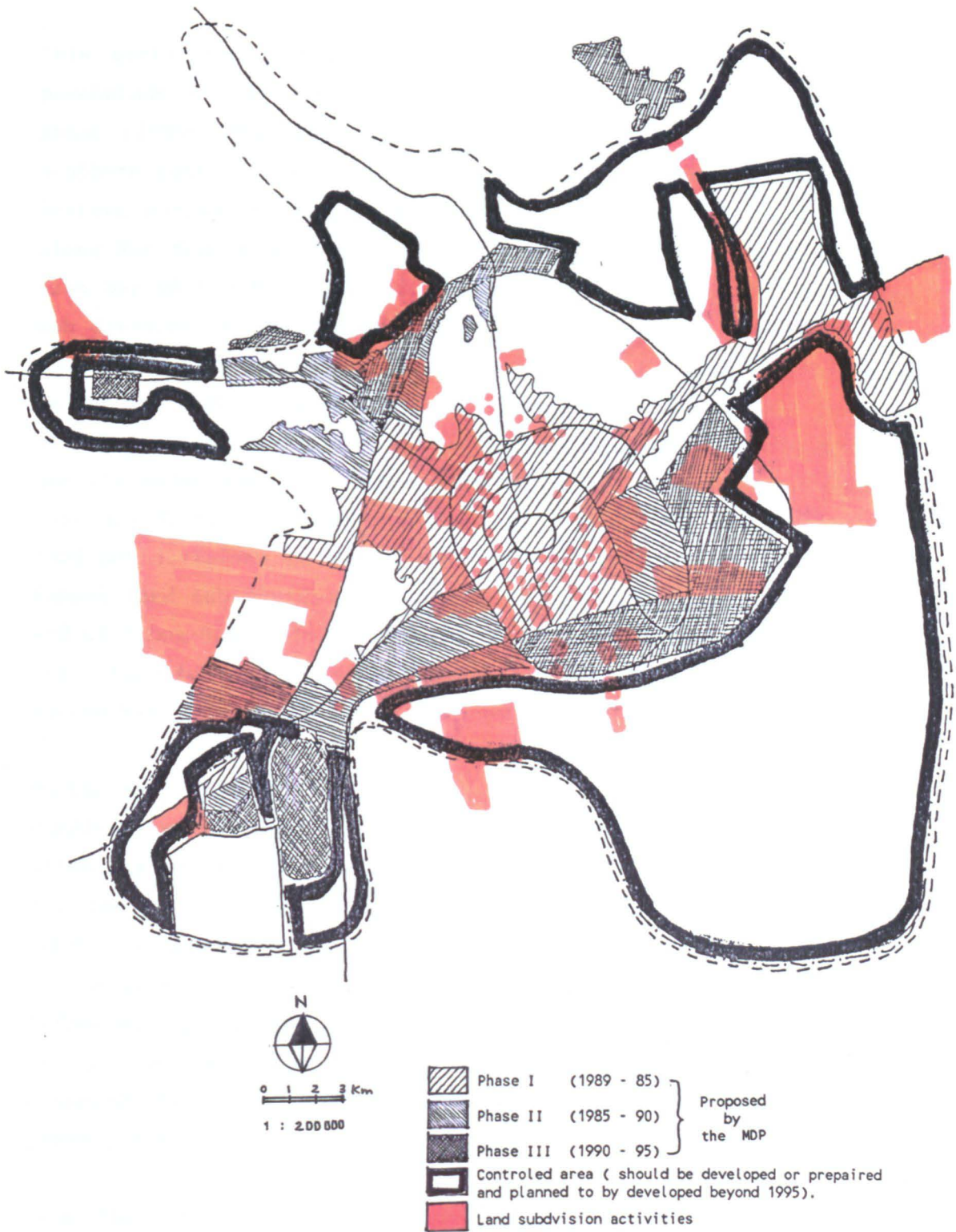


Figure 5.3 : Land subdivision activities until 1990 comparing with phasing programme proposed by the MDP.

this particular phenomenon regarding land sub divisions. A large percentage of the land sub divided falls either within the third phase (1990-1995), such as Al Khalediah land sub division in the southern east of the Second Ring Road, the land sub division in the Eastern Harrah and a part of the National Guard land sub division along Non Muslim Road, or not only outside of the phasing area but also beyond the Metropolitan Boundary. Examples include A'Kool land sub division in the southern east of the Airport, first Difa' land sub division at the east of the Airport and other land sub divisions on the south of the Airport. Other examples are Al-Shaybiah land sub division at the south part of Medina and Azeeziah land sub division and its extension, low income land sub division within and near to Abar Ali district in the southern west of Medina. In addition, the land sub divisions in the Northern West of Medina which include Al-Rabwah land sub division and another land sub division falls at the end of Tabuk Road outside of the Metropolitan boundary, beside other small land sub divisions are located between Non Muslim Road and the Second Ring Road in the northern part of Medina.

Furthermore, figure (5.4) and table (5.1) clarify that most of land subdivisions as shown in figure (5.3), were developed during and after making the MDP (i.e. between 1979-1990). In fact, 77 percent (of the total plots) were supplied for development within land subdivisions between 1979-1990, with 5249 plots as an average of the annual supply. While 23 percent (of the total plots) were supplied before making the MDP, with an average of 1586. This means that most of the land subdivisions were implemented in accordance with the proposed phasing programmes as mentioned above, were occurred during phase I and II.

Thus the way land sub division and development activities have occurred in Medina has led to urban physical expansion displaying two major characteristics, both of which represent in some degree a deviation from the MDP proposals. The first feature of actual growth is the amount of vacant land (urban pockets) within the first and second ring road, (the phase I and phase II area). The second feature is the sprawling developments, created either by building up or by sub dividing lands, mostly within the peripheries from the

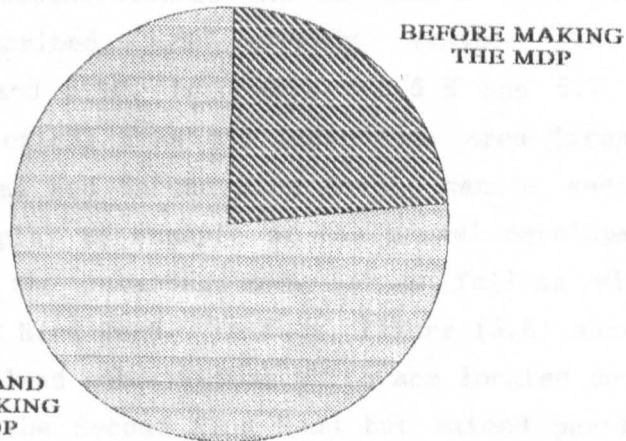


Figure 5.4 : A comparison between landsubdivision plots supplied before and during the MDP planning process

PERIOD STATISTICS	LAND SUBDIVISION PLOTS SUPPLIED BEFORE MAKING THE MDP (1967-1978)	LAND SUBDIVISION PLOTS DURING AND AFTER MAKING THE MDP (1979-1990)
TOTAL NUMBER OF LAND SUBDIVISION PLOTS	19029	62988
MEAN	1586	5249
%	23	77

TABLE (5.1) : LAND SUBDIVISION PLOTS SUPPLY BEFORE AND DURING THE MDP PLANNING PROCESS

fringe of the area within the Second Ring Road and beyond, particularly eastwards and westwards and to some extent northwestwards, and southwestwards and southwards. The undesirable characteristics described are already visible in figures 5.5,5.6,5.7,5.8,5.9 and 5,10. In figure 5.5,5.6 and 5.7 the land pockets within the central area and inner city area (area between Intermediate Ring Road and Second Ring Road), can be seen. Figure 5.8,5.9 and 5.10 display an example of the sprawl developments and vacant land but in the suburban area (areas falling within and outside of the Second Ring Road. In fact, figure (5.8) shows a part of Azhari and Naseem land subdivisions which are located outside and to the northwest of the Second Ring Road but extend partly inside the Second Ring Road. Part of these two land subdivisions have been developed. Similarly, figures 5.9 and 5.10 manifest other examples of the sprawling developments along Tabuk Road and its extension Khalid-Al Walead Road, also along Non Muslim Road which appear in fig. 5.9. While fig. 5.10 shows the sprawling areas along Sultannah Road. Both figures show another sample of the vacant lands too.

There is clearly an important question to raise about why urban physical expansion behaved in the way described. At this point it is necessary to make an examination of the development of some essential utilities and the extent to which they conform to the MDP as the essential utilities have an important relationship and impact upon the pattern of urban physical expansion.

5.1.2 The Essential Utilities:

In this section the essential utilities examined, which are the infrastructure of Water supply, Sewerage, Storm water drainage, the telecommunications network, the electricity network and solid waste disposal system; and public services such as telegraph and postal services, health services, educational and religious services and fire and polices stations. But what we will do here is to take some of these utilities and services opportunistically regarding the availability of information. In fact, only four of the essential networks, which are Water supply, sewerage, telephone and electricity network, will be examined. Other materials will be



Figure 5.5 : Another part of the inner and center of the city which fall within the intermediate Ring Road

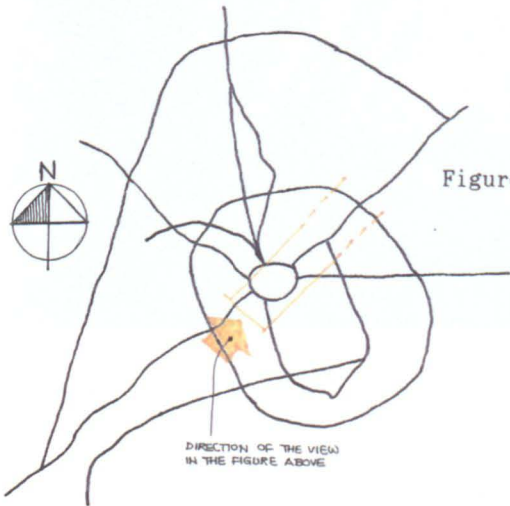


Figure 5.6 : Area within the intermediate Ring Road and the central area : land pocket inside the city



Figure 5.7 : Area along sayed shohada'road : land pocket inside the intermediate Ring Road



Figure 5.8 : Sprawling development within the suburban area : Azhari & Naseem land subdivision

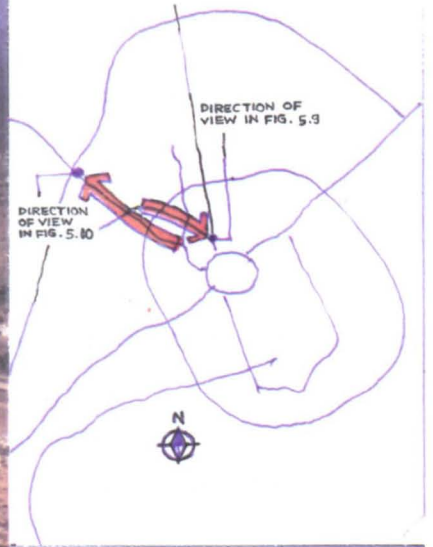
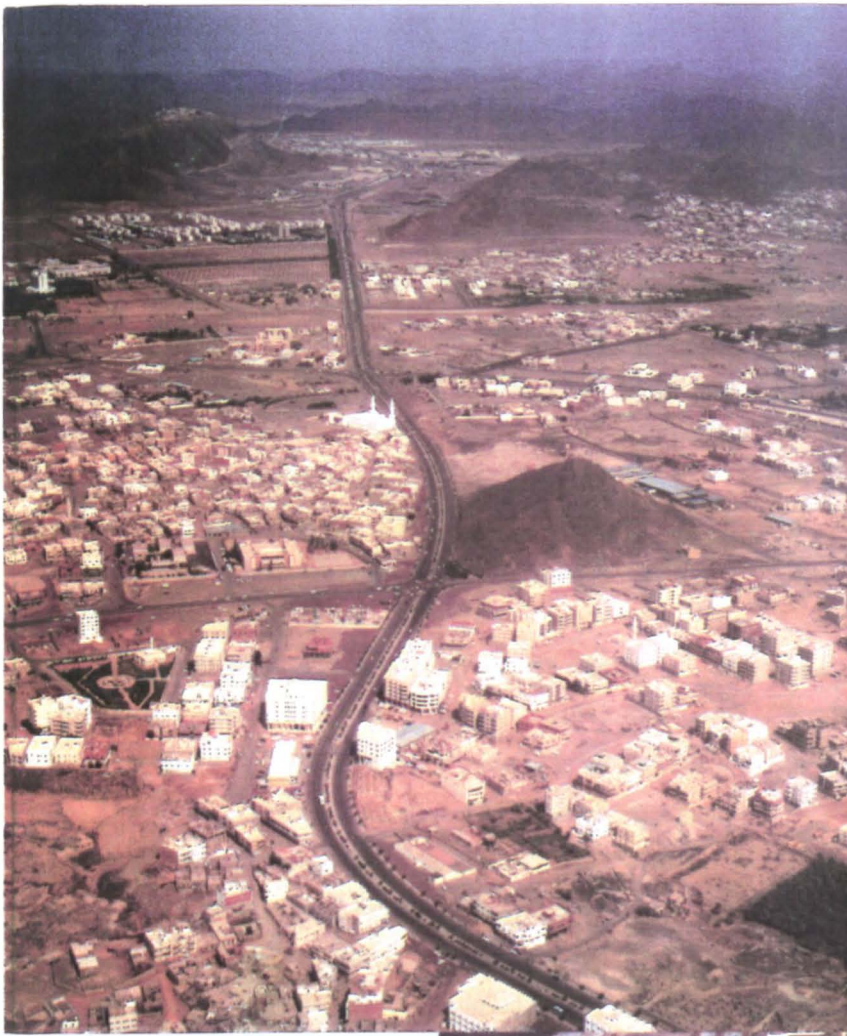


Figure 5.9 : Area along Khalid ibn Waleed road and its extension : Tabuk road (Sprawling development and growth)



Figure 5.10 : Area along Sultannah road (Sprawling development in addition to vacant land)

treated generally and mentioned in the discussion whenever they are useful and relevant.

However, regarding to the importance of keeping pace with the phasing programme in developing and improving the essential utilities networks, the MDP stated, "Being a basic element of infrastructure necessary for the direction of development towards the areas recommended by the Master Directive Plan, the planning of essential utilities should keep pace with the development process during its various stages...."(MMRA, REP.NO.9:pp.130).

Also in terms of drawing some general warning outlines the Plan pointed out, "It is essential that strict enforcement of the development sequence is directly related to the level of efficiency in the use of utilities and other service networks. The efficiency in the provision of services and utilities will be reduced if development is allowed outside those designated for each phase. The results will be that the served areas will function at reduced efficiency and capacity, while others would be without the benefit of proper service network. Utilities can also be extended to the Controlled Areas, without waiting for the materialization of target population, if proper financial backing is available" (MMRA REP.NO.9:pp.221)

The MDP, in view of phasing programme, gave high priority during the first phase to maintenance, repair and improvement of the existing networks, while designing the new ones. Also, it recommended to discontinue the use of cess pools in houses and connect these houses with proper sewerage network to prevent soil contamination and consequently underground water pollution.

Now we need time to examine the degree of conformity in the actual development with the specific recommendations of each network within the above outlines.

5.1.2.1 Water Network and Sewerage Disposal System:

Because both water network and sewerage disposal system are the responsibility of one authority, they will be examined together. Hence, operationally water supply network means main trunk line, lateral lines, water reservoirs, pump stations and essentially water resources. The sewerage disposal system consists of; main sewers, land out-fall, pumping stations and water treatment plants.

The specific improvement proposed by the MDP for water supply network up to 1990 include:

- a) The expansion of the existing Yanbu Desalination Plant capacity from 27 million cubic meters annually (15000 cubic meter per day) to 55 million cubic meter/year (152000 cubic meter/day). The YDP was considered as the main source of water in addition to the underground water (wells) which was recommended to be developed too.
- b) Expansion of the existing water network to cover the whole designated area up to 1995. In other words, water network should cover all phasing areas by the end of 1990.
- c) Construction of reservoirs to increase the storage capacity from 171,000 cubic meter to 192,750 cubic meter (MMRA, REP. NO. 9).

The sewage network proposed outlines up to 1990, i.e. during phase I and II; involve the following:

- a) Extension of the existing network to cover all the inhabited and newly developed areas according to the proposed phasing up to 1990. This in fact, includes most of the area within the Second Ring Road and areas fall scatterly in the north and south west of Medina as indicated in the proposed phasing area.
- b) Increase of the capacity of liquid waste water treatment plant. Specifically, to raise the capacity of the existing treatment plant from 20,000 c.m. to 40,000 c.m. together with new treatment plant which will receive 80,000 c.m./day during

phase I, then ultimately to 120,000 c.m./day at the end of phase III.

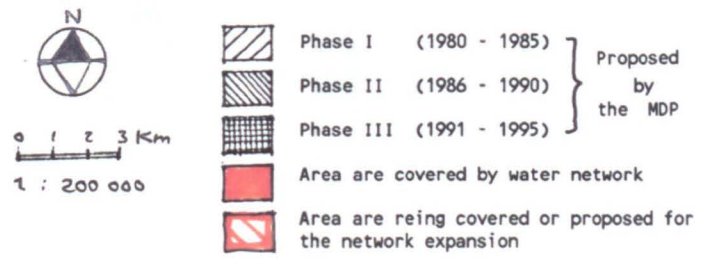
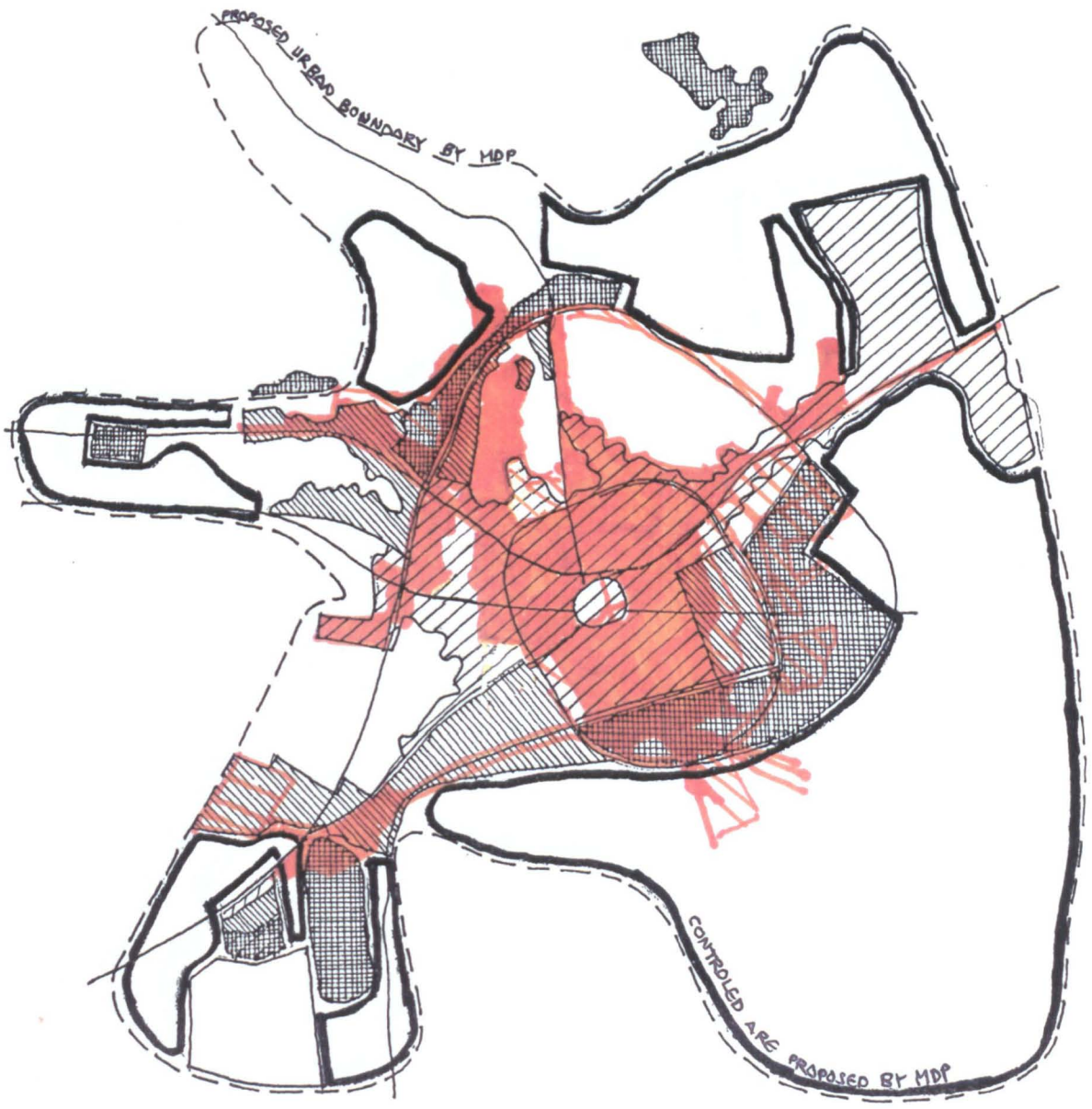
- c) A feasibility study to be made for the treatment of the liquid waste in Abar Ali district locally instead of transferring it through a long way to be treated in the Uyoun treatment plant in the North part of Medina (about 15Km distance).

Let us now turn to the existing condition and its conformity with the above outlines. The main factor of the analysis will be the locational aspect. In other words, were both networks expanded to cover the areas of the three phases proposed and outlined in the MDP? In this way the other proposed improvements will be discussed whenever they needed either to examine the degree of conformity or to discuss the 'why' question.

Regarding the water supply network, the comparison between what was proposed and what actually has happened shows a very considerable contrast specially in respect to the areas supposed to be covered with this utility by the end of 1990. "Expansion of the existing water supply network should be undertaken to serve the designated area of about 12,847 hectares for development up to the year 1415 (1995)"(MMRA, REP.NO.9:pp.143).

Figure (5.11) is evidence for the above argument. It shows the area covered by water supply network which represents about 50 percent of the total area of the proposed phasing area. Moreover, some parts fall within the Second Ring Road have not covered by this network. Also, much of the subdivided land is not served by the network, and of this, about half is located within the proposed phasing area as shown in figure(5.12). Examples include Azhari and Naseem land subdivisions on the northern west of the Second Ring Road, Difa' and Nogaimshi land subdivisions in the western part between Non-Muslim Road and the Second Ring Road, Hijjrah and low income land subdivision along Hijjrah and the southern part of the Non Muslim Road, respectively².

² Areas not served by the network are using traditional means such as public stand posts installed by the Municipality and water tankers as well.








-  Phase I (1980 - 1985)
 -  Phase II (1986 - 1990)
 -  Phase III (1991 - 1995)
 -  Area are covered by water network
 -  Area are reing covered or proposed for the network expansion
- } Proposed by the MDP

Figure 5.11 : Actual development of water supply network compared with the proposed phasing programme by MDP

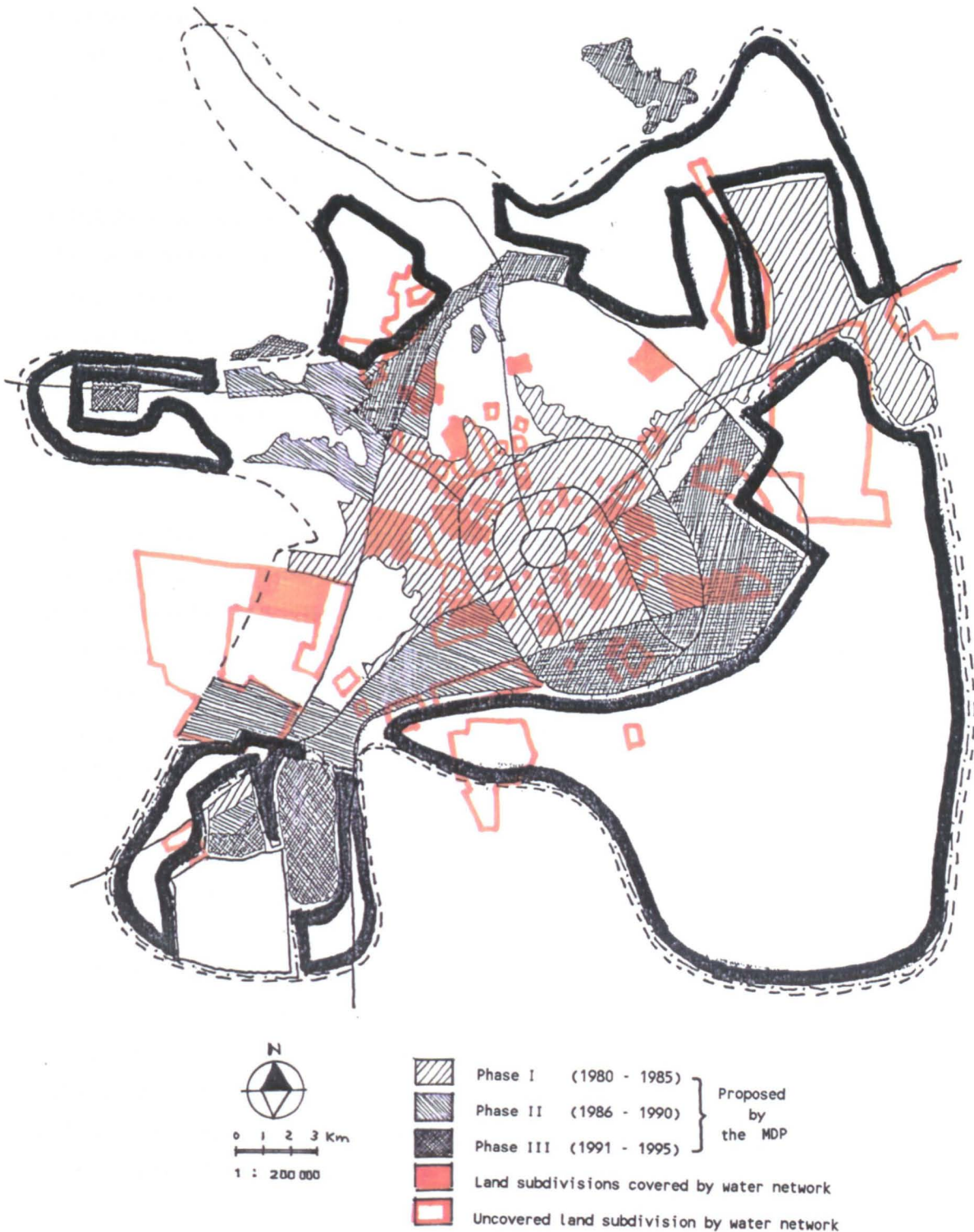


Figure 5.12 : Land subdivisions serviced by water supply network.

Furthermore, many reservoirs have been constructed in various locations in Medina, which accordingly provides a total daily production of water that amounts to 170,000 c.m. (Medina, 1990), despite the fact that the second phase of YDP project upon which the MDP proposal was based has not been completed yet³. In fact, the 170,000 c.m. is more than Medina's needs as forecast by the MDP. The MDP estimated that by 1990 water consumption would be 120,000 c.m./daily normally and 150,000 c.m./day during the Hajj. But, according to an official, in the Water and Sewerage Authority (W.S.A.), recent production actually does not fulfil the total consumption need which may be unexpected developments due to industry and agriculture.

The sewerage network serves only a small part of the first phase area proposed by the MDP and very little of the second and third phase, namely, to the east and southeast of the Intermediate Ring Road. This area is illustrated in figure (5.13) which shows that the Sewerage Disposal System actually has not gone beyond the Second Ring Road, except in the west where few of the land sub divisions are located, and the north where the major sewerage treatment plant is located. Moreover, many areas between the Second Ring Road and the Intermediate Road, in addition to some areas within the Intermediate Ring Road have not been linked with the network yet.

The total length of the network is about 260 km (only 187 km in operation while the rest is under construction), which is very little compared to the water network (700 km in operation). (Al-Baladeyat, 1988) Likewise, the area was covered by the water network and was estimated to be 9.600 hectares while the Sewerage network only covered 1200 hectares.

In contrast, although the land out fall and treatment plants have not been constructed in the locations proposed by the MDP the capacity and function of the Oyoun treatment plant, which has been built, covers approximately the estimated needs by the MDP. These

³ Five Reservoirs have been constructed, actually are fed by the public and private locate wells which have been developed, and by a part of the YDP production (78 percent of total production = 76000 c.m./a day and 27 million c.m. per year).

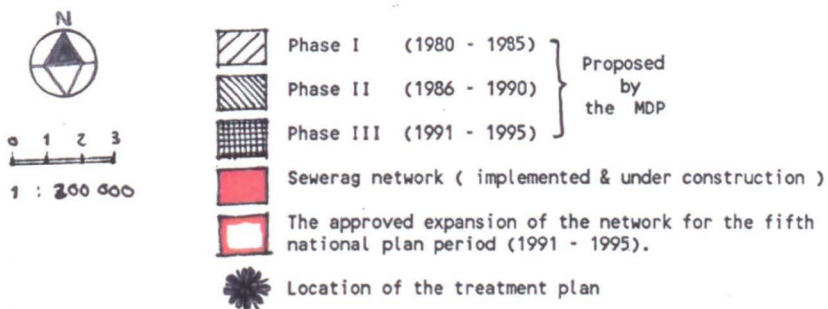
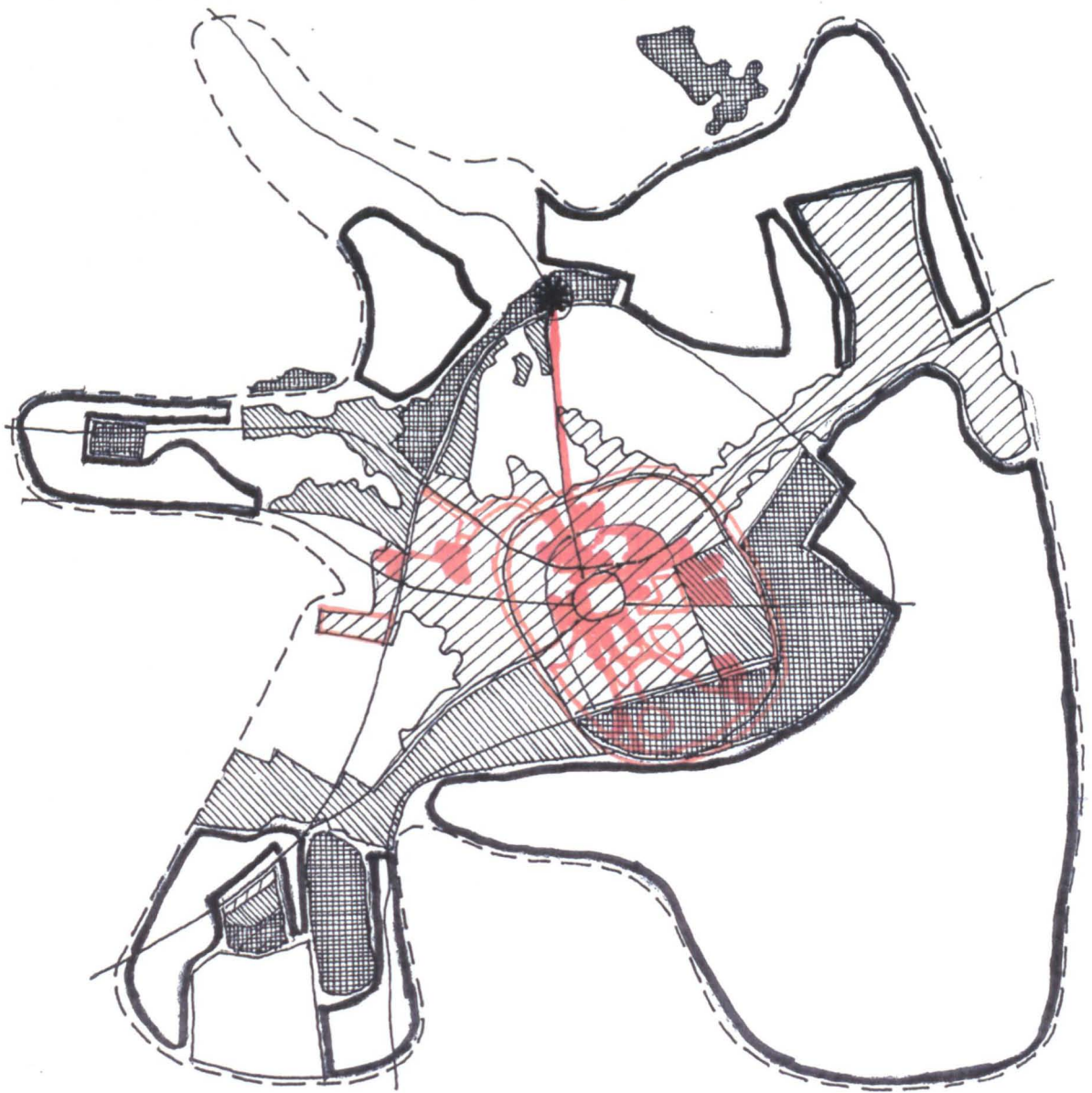


Figure 5.13 : Actual development of the sewerage network compare to the MDP's phasing program proposed

estimated needs are 120,000 c.m./day at the end of phase III, while the flow capacity in 1989 was 120,000 c.m./day with a target increase to 200,000 c.m./day (Mushrif, 1988). However, the proposed study for Abar Ali treatment plant by the MDP, is in fact included in a recent comprehensive study project of constructing sub treatment plants to be allocated all over the city in various locations as stated by the Director of Engineering Department in W.S.A.

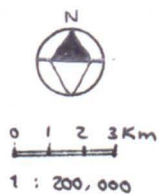
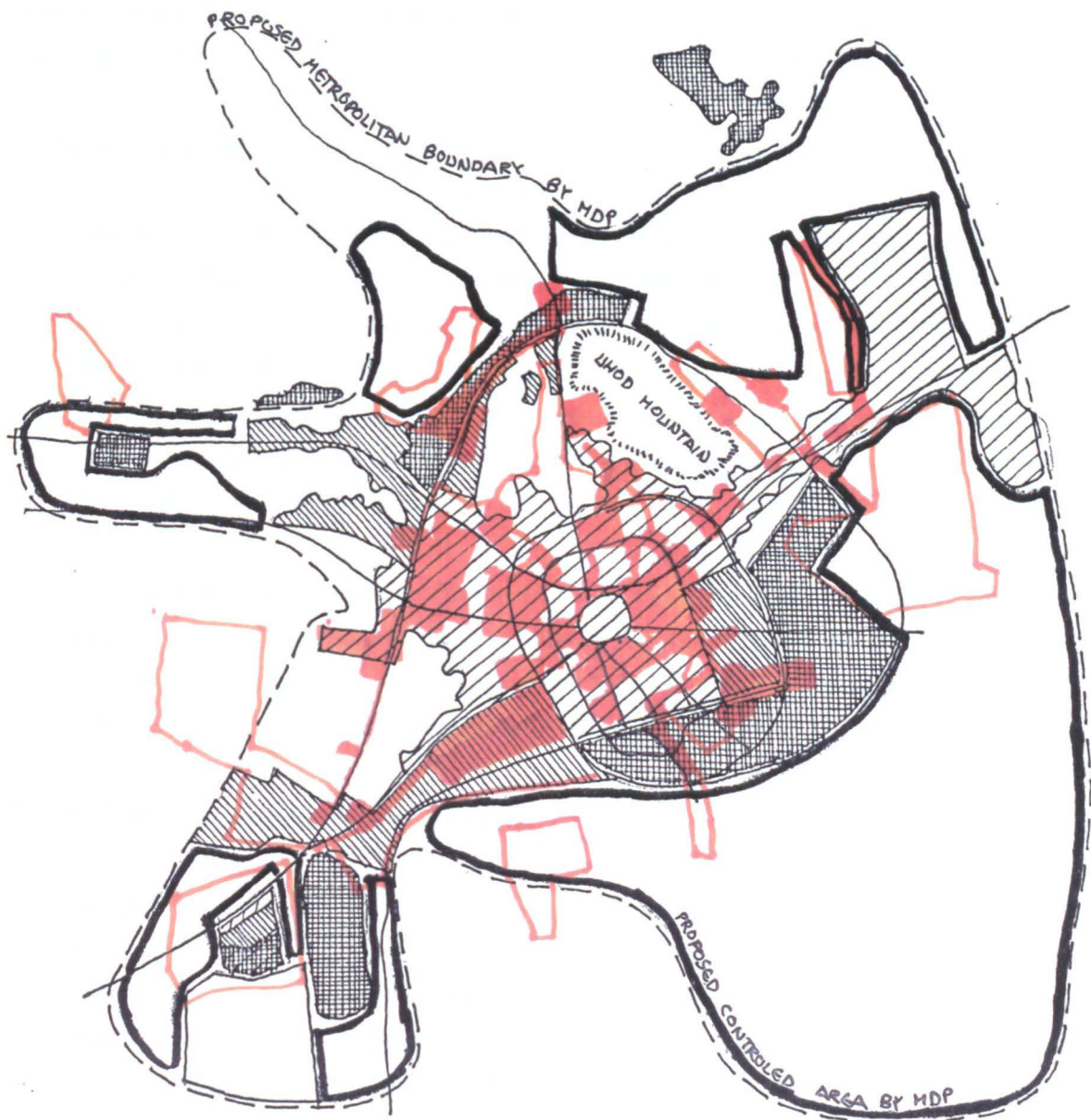
In sum, the actual development of the water network and sewerage disposal system in terms of location has not followed the MDP's proposal in respect of the areas designated for the three phases.

5.1.2.2 Telephone Network:

The purpose of this utility, in regard to the MDP outlines, is the telephone lines and services. The proposed services were recommended by the MDP to an average of 22 lines per 100 inhabitants. And according to the projected population levels for 1990 and 1995 the capacity was supposed to increase from the 46,000 line, existing in 1980 to 132,000 lines and 172,000 respectively. (MMRA,REP.9)

In addition, the proposed improvements involve central offices, switching facilities, inter-office trunk lines, toll facilities, trunk lines to other cities in the Kingdom and international trunk lines to meet the ultimate peak load. (MMRA,REP.9)

Comparing the above proposed outlines with the actual developments, which could be observed through figure (5.14) same characteristics of unconformity is a phenomenon. Many parts within the first and second phase, proposed by the MDP have not been linked with telephone network. Moreover some of these areas fall within not only the Second Ring Road but also the Intermediate Ring Road. But another feature could be noticed, in the figure too. Some areas which were benefited from the network or proposed to be benefited, fall outside not only the two first phases area, i.e. within the third phase, but also outside the whole phasing area, even outside of the controlled area. For example Al Khalediyah district (at








- | | | |
|---|--|-----------------------------|
|  | Phase I (1980 - 1985) | } Proposed
by
the MDP |
|  | Phase II (1986 - 1990) | |
|  | Phase III (1991 - 1995) | |
|  | Area covered by the telephone network
or being covered | |
|  | Area proposed and approved to be covered
within the fifth national plan period (1990 - 1995). | |

Figure 5.14 : Actual development of telephone network compare with the proposed phasing programme for development by the MDP

southern east) and land sub division falls within the third phase as well as National Guard land sub division along Non Muslim Road.

Although the area on the northeast and the land sub divisions on the west side of the Uhpd Mountain are outside of the phasing area, they are nevertheless covered by network. Many other areas such as Shaibeyah, Rabwah, Difa' (first, second and third) land sub division, and the Municipality land sub divisions on the far east northern west, far west, also the Industrial Area along Anbariah Road. All are located outside of the phasing area even outside of the Metropolitan Boundary, but they are proposed to be serviced by the network.

However, in respect of the capacity of the network the difference between what was proposed by the MDP (132,000 lines by the end of 1990) and the actual provision in 1990 (68000 lines) (Medina, 1990), reveals a shortfall of almost 50 per cent.

5.1.2.3 Electricity Supply Network:

The main function of this network as defined by the MDP is: "to furnish sufficient and reliable power within the standard voltage tolerance to meet the daily needs of all users and to have enough reserve capacity to supply emergency and future needs without degradation of service" (MMRA. REP. NO. 9: PP.161).

Specifically, to fulfil this purpose the following outlines were recommended by the MDP:

- a) based on the population forecast and the rate of electricity consumption during 1981 - 1978, the expected need of Medina for the power capacity was 910 MW while the existing capacity in 1978 was 83 MW.
- b) Developments in regard to transformer stations of which one on Medina-Tabuk Road was being undertaken to receive power generated by Yanbou Desalination Plant (YDP).

- c) Developments related to the network expansion in the whole urban area were forecast for 1985, 1990 and 1995, which included the extension of underground and overhead cables and lines, and the construction of sub stations.

Comparison of the actual condition of the network at the time of the empirical study with the phasing programmes proposed by the MDP, figure (5.15) shows that this utility is the only one which has followed, to a great extent, the phasing programme. That is to say that the network does now cover the urban built-up area and the sub divisions completely. In fact, most of phase I and II have been serviced in addition to some parts of phase III. But, some parts fall outside the phasing area such as Rabwah land sub division to the northwest; and low income and third Difa' land sub division. The total area covered by the electricity service was 13700 hectares; about 3600 hectares of it is undeveloped land sub divisions. (MMRA, 1987)

More areas have been and are being covered by the network as declared by the Director of Medina Electricity Corporation (MEC).

In contrast, the capacity estimated to meet Medina's needs as envisaged by the MDP has not been fulfilled because the Second Phase of YDP has not been completed yet, although the MEC has assigned a very long project which will link Medina network with a regional station (Rabegh Station which located 350 km from Medina to the west) with 380,000 voltages (high voltage power). This fact can be overcome by the possibility of too high estimation of capacity. Because this estimation based on the high forecast estimated by the MDP for Medina population in 1990 while the recent survey by the Municipality estimated the existing population as 405,000.

Summary:

It could be argued as a main finding of this section, that the urban physical expansion including the essential utilities development has deviated considerably from what was proposed by the MDP, in respect of phasing the development.

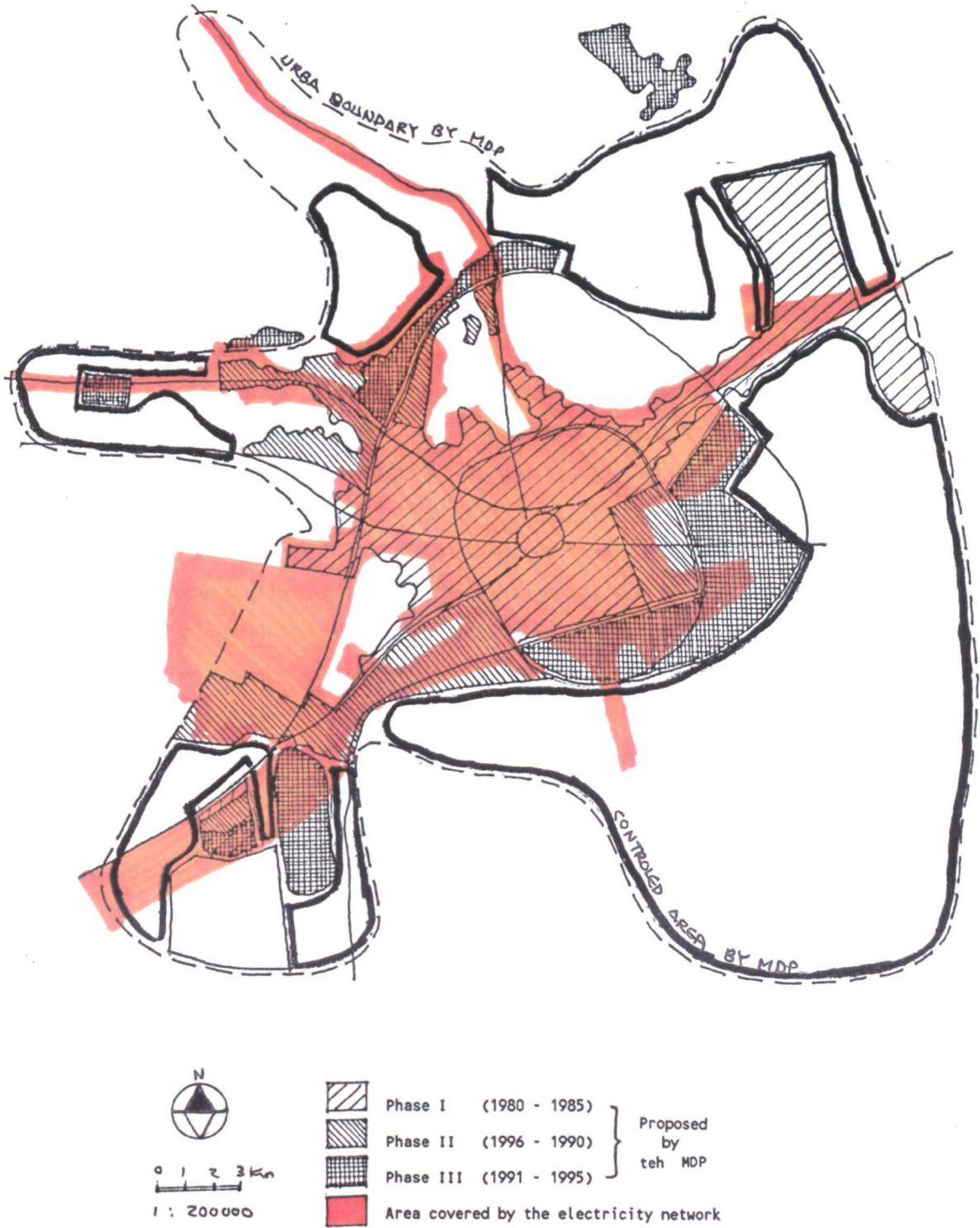


Figure 5.15 : The actual development of the electricity network compared with the proposed phasing of development by the MDP

This deviation has occurred mainly through two phenomenon. Firstly, there remains vacant land within the Second Ring Road and First Ring Road. Secondly, the urban sprawling and scattered developments outside not only the First and Second phase, proposed by the MDP, but also outside the phasing area as a whole, even beyond the Metropolitan Boundary. This included the unorganized developments that occurred in various locations of Medina.

On the other hand, most of the essential utilities, namely Water, Network, Sewerage Disposal System, telephone and electricity networks, instead of directing the growth and developments parallel to the proposed phasing and thus achieve the desired form for the city, behaved rather like a road sweeper who follows other action to take his action accordingly. In specific, many of the inside areas, i.e. within the Second Ring Road, have remained without essential utilities except electricity. Whereas a lot of urban areas built or not built, although they fall outside the phasing area have been linked to the service networks.

At this point, many questions could be raised in respect of the factors and forces influence the actual urban physical expansion and development. But the most relevant one is about the role of the public administration and policy effects upon this pattern of growth and developments. In other words, why has the MDP not apparently played any role in directing and influencing the development that has been carried out?

A part of the explanation can be determined through the on an analysis of the factors influencing the urban physical expansion that has occurred until 1990. The explanation can be developed through an analysis of subsequent cases and sections.

5.2 The Mechanism of the Phasing Programme Implementation:

In terms of achieving the main objectives of the phasing programme some tools the MDP highlighted to be used by the authorities involved in urban development. The tools as defined by the MDP are:

- a. Governmental acquisition of property.
- b. Governmental construction of particular facilities in particular areas.
- c. Restrictions imposed by zoning ordinance.
- d. Sub-division regulations requiring the developers to fulfil certain requirement at particular times or in particular locations.
- e. Policies,for the extension of utilities in terms of location and time. (MMRA,REP.NO.8)

This framework may provide us with an approach to an analysis of the factors influencing the physical expansion of the urban area, and explaining why the MDP has not effectuated. But this framework should not be a cage that prevents us from accepting any other explanation that emerges in the field. On the other hand, some of these tools will be covered in detail through the other subsequent cases. In this section, the emphasis will be mostly upon the acquisition of land by government as well as directing the extension of the utilities, in addition to sub division regulations utilization in controlling the developments.

5.2.1 Factors influencing the pattern of urban physical expansion :

To understand the mechanism of urban physical expansion and development and the role of the planning machinery in this mechanism, the local context in which the MDP implementation was and is processed, in particular the land market, will be analyzed. In this way an explanation for the ineffectiveness of the MDP will be possible.

Basically, the land market in Medina has been affected significantly by the national economic structure and behavior and national government policy, in addition to the local factors which relate mostly to the major participants or actors in land development process. Specifically, as a consequence of the oil price increase in 1973, there was a rapid growth of the national income. And accordingly the governmental expenditure witnessed a considerable

increase too (see section 3.4.1), especially on the basic infrastructure and public services. This led to a marked feature of urbanization as concluded by Al-Ibrahim:

"urbanization process in Saudi Arabia is extremely rapid and strongly polarized toward the metropolitan centers or the seven largest cities." (Al-Ibrahim, 1982: PP.262).

Medina was one of these seven cities. The population of Medina increased from 198000 in 1974 to 311,284 in 1978, signifying an annual growth rate of 13 percent over these years. The most important component of this growth is the migration either from other cities, rural and desert areas or international migrants (from Arab, Muslim and other countries). And no doubt, this population needs housing which increases the demand for building permits as shown in figure (5.16) which clarify precisely (accelerated growth in building permits, were demanded in the period 1973 to 1982. After 1982 the application dropped back, though there were marked fluctuation during the 1980's. This implies there was a rapid increase of land earmarked for development before the MDP period and during the first phase, namely from 79-83. In addition there was the increase of land sub division especially after the oil boom in 1973 (MMRA, REP. No.5.III). In fact, many of these land sub divisions especially those which fall within the Intermediate Ring Road, beside much other vacant un-divided land in the same area have been and are being held speculatively by private owners in the expectation of an increase in land prices. Other land sub divisions were demanded by Defence Ministry and National Guard to fulfil their employees' housing needs in Medina (About 28 percent of the total number of land plots supplied within land sub divisions between 1974 and 1990 as shown in figure 5.17).

Municipal projects, in particular, the very distinguished one such as the enlargement of the Prophet's mosque (from 16500 square meter area to 98500 s.m.) reflects another pressure and raises the land demand. The land already acquired for this purpose, within the central area is about 100,000 sq.m. (55 percent of the total city center area which bounded by the First Ring Road). (Medina Municipality, 1990). Another example of these municipal projects is

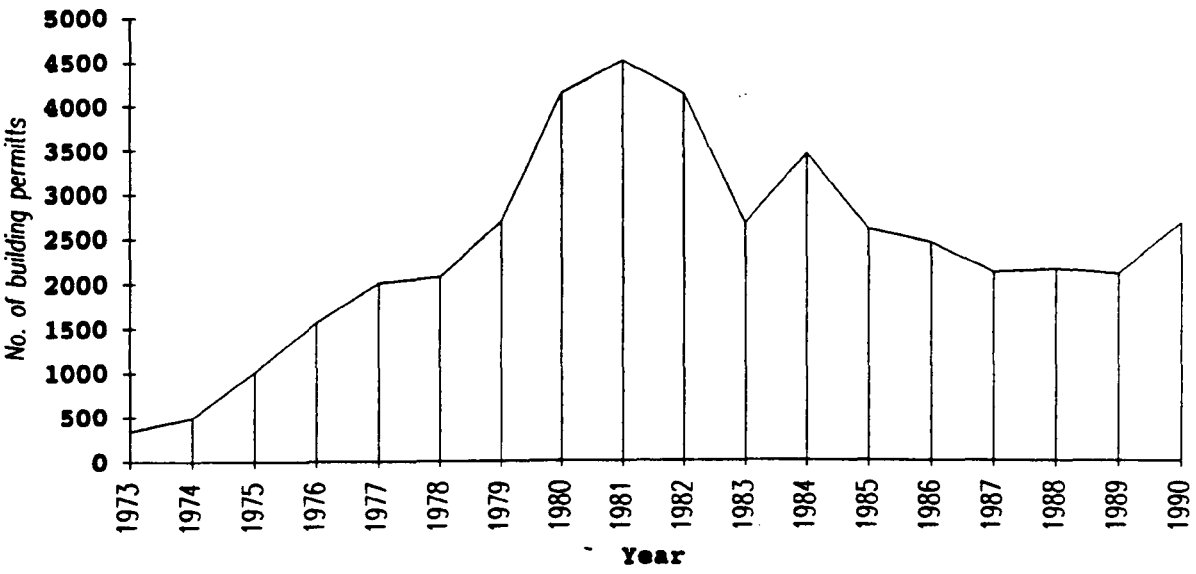


Figure 5.16 : Demand for building permit
 (source: Medina Municipality)

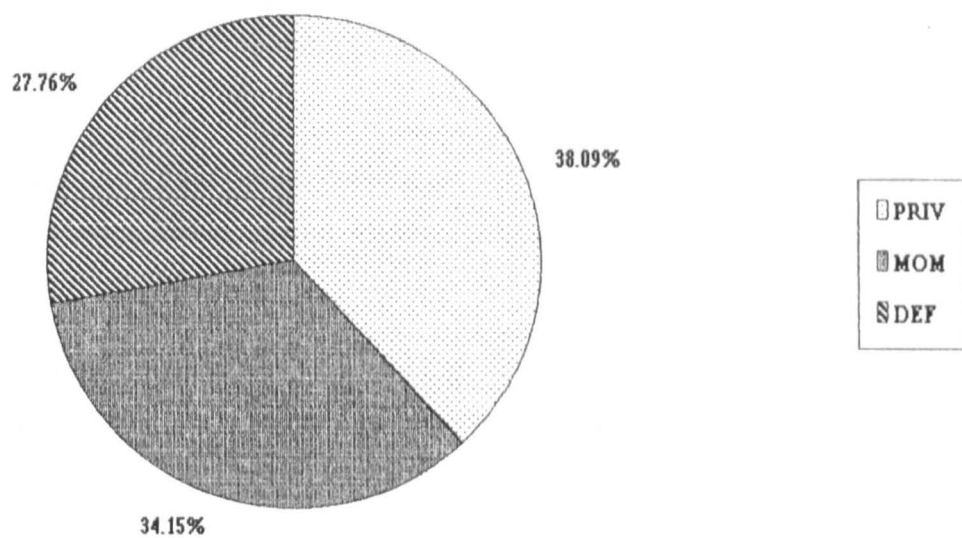


Figure 5.17 : Sources of land subdivision during 1974-1990.

Quba Mosque, Ava, Qiblatain Mosque Area, Migat Mosque Area, the third Ring Road, Bab Assalam Road, King Abdullal Azeez Road, Khalid Ibn Waleed Road and Sultanah Road project in addition to many other governmental projects which were a responsibility of other local governmental authorities. All these projects put pressure upon land demanded for development.

The other face of the land market in Medina is the land supply which is very sluggish in the central area as well as the area within the Intermediate Ring Road, i.e. inner city, but the inner city is a bit more active than the central area. In contrast, most of the land supply activities are concentrated in the suburban area (the area outside the Intermediate and

Second Ring Road especially to the west of Medina in addition to some on the southern and eastern sides). There are two reasons for this pattern of land supply:

The first, is the pattern of land ownership in these areas and accordingly the behavior of land owners. The second is the weak role of the government intervention.

In fact, most of the urban land in Medina was and is owned by the private sector with some exceptions of ownership by the government and Wakf ⁴. Also, agricultural land which is interspersed within the inner city is usually in private ownership. In contrast most of the land outside the urban areas is a public land, i.e. owned by the government (MMRA, REP.NO.5), but much of it has been transferred to private hands through the governmental land subsidy policy; either by direct or indirect urban land subsidy or through the arable land distribution programme (see sect. 3.3). Figure(5.18), shows the pattern of land sub division ownership, and also gives a general indication of the locational distribution of the land ownership pattern.

So, it could be concluded that development land came both from private and from public sources. But as can be seen in figure (5.18)

⁴ See Glossary

the public source is composed of two bodies, the Defence Ministry and the Municipality.

However, the private sector was affected markedly by the sharp land price increases in the period 1974-1985 as seen in figure (5.19). All of them were motivated considerably by the desire for greater profit. (Abdullal, 1987) The impact of this behavior appears clearly within the central and inner city area as there land is owned predominantly by the private sector, whereas the other areas fall outside the Intermediate and Second Ring Road were dominated by land sub divided to be sold and developed. (Abdullal, 1987)

Within this context the MDP was intended to be used, as a major public policy, in controlling and directing urban development activities, in Medina, either by private sector or by other local governmental authorities.

The MDP, as mentioned before, was not completed until 1983. According to the planning department director it was not received by the Municipality by mid 1984. This means that the urban developments between 1979-1983 occurred in the absence of the Plan. In this period the peak of building permits and land sub divisions appears as shown in figure (5.16) and (5.20). In fact, a total 12605 and 13335 plots were supplied within land sub division projects in 1980 and 1981 respectively. Moreover, it can be concluded from table 5.2, 5.3 and 5.4; that about 70 percent of the total plots included in the land sub division projects between 1979-1990 were approved between 1979-1983 in the period of Plan making process, about 24 percent of them supplied by the Municipality and 33 percent by the Defence Ministry, while 48 percent by the private sector. In contrast about 78 percent of the total plots supplied in the period of plan making, were provided by the Municipality while no any sub division activities were performed by the Defence but 22 percent by the private sector.

These figures clarify some of the Municipality response and activities in term of involving in the urban development. But the figures elucidate another fact about this response; that the MDP was

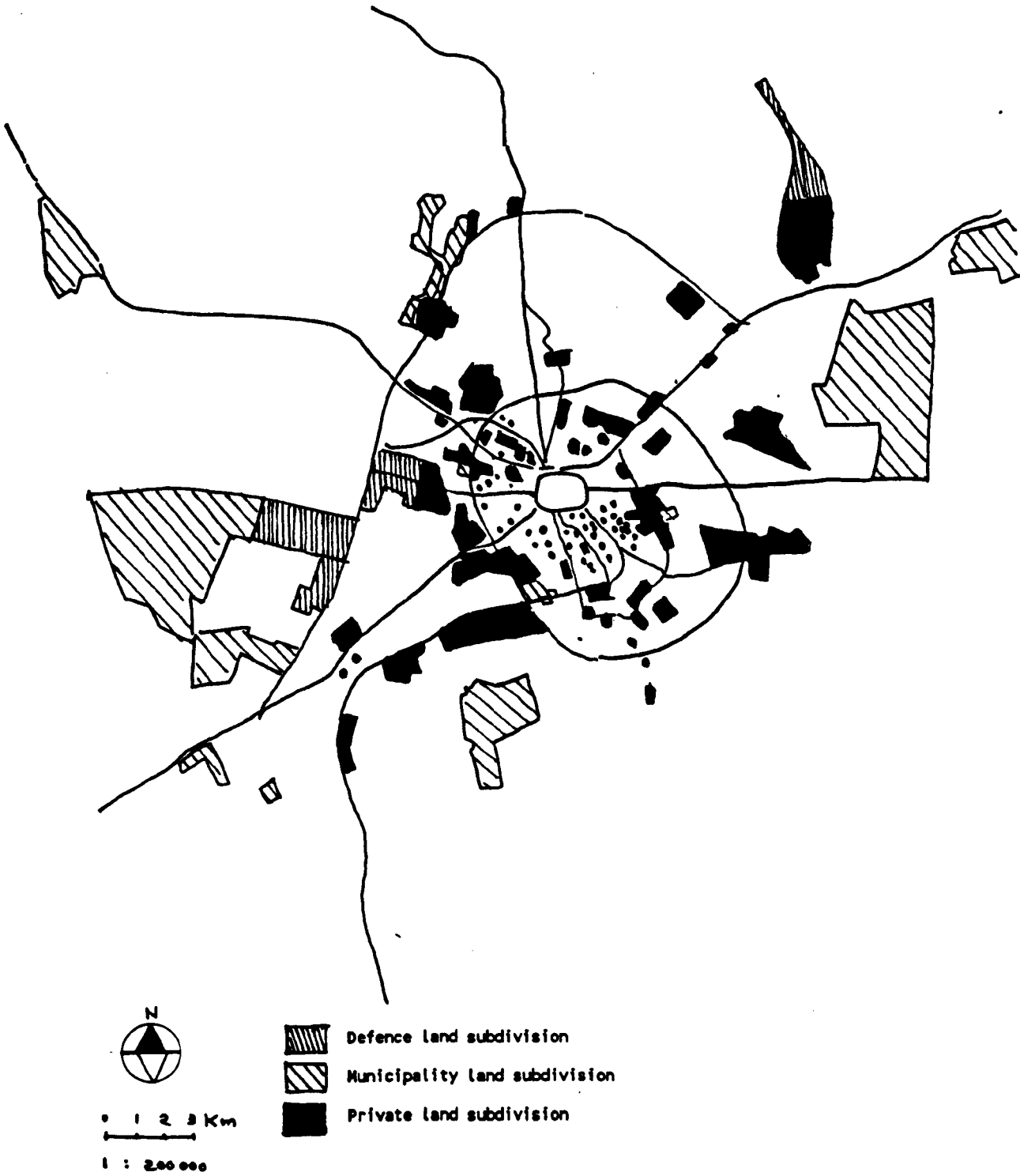


Figure 5.18 : Sources of subdivision projects until 1990
 (source: Abdullal,1987 and Medina Municipality)

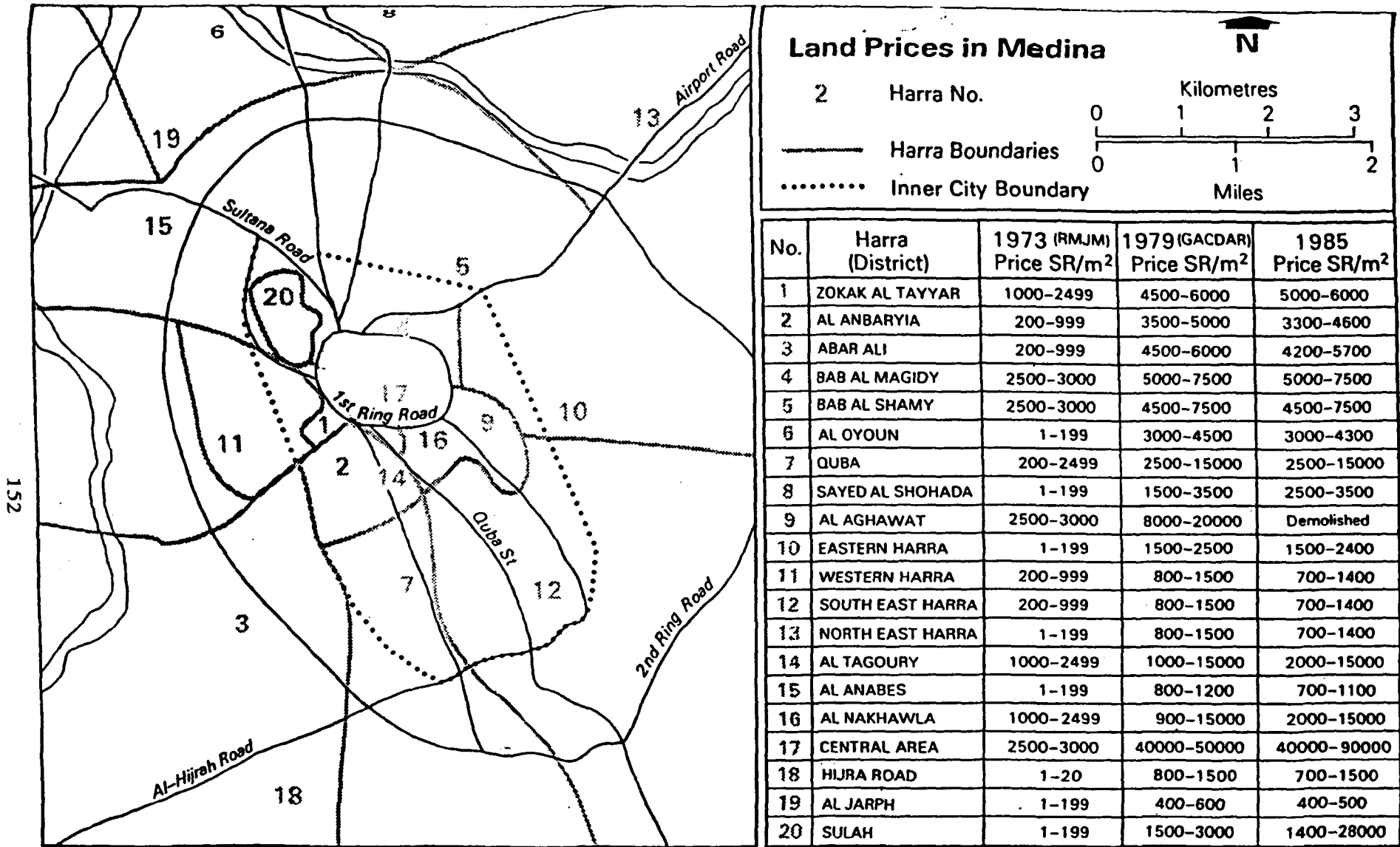


Figure 5.19 : Land price in Medina.
(source: Abdullal,1987)

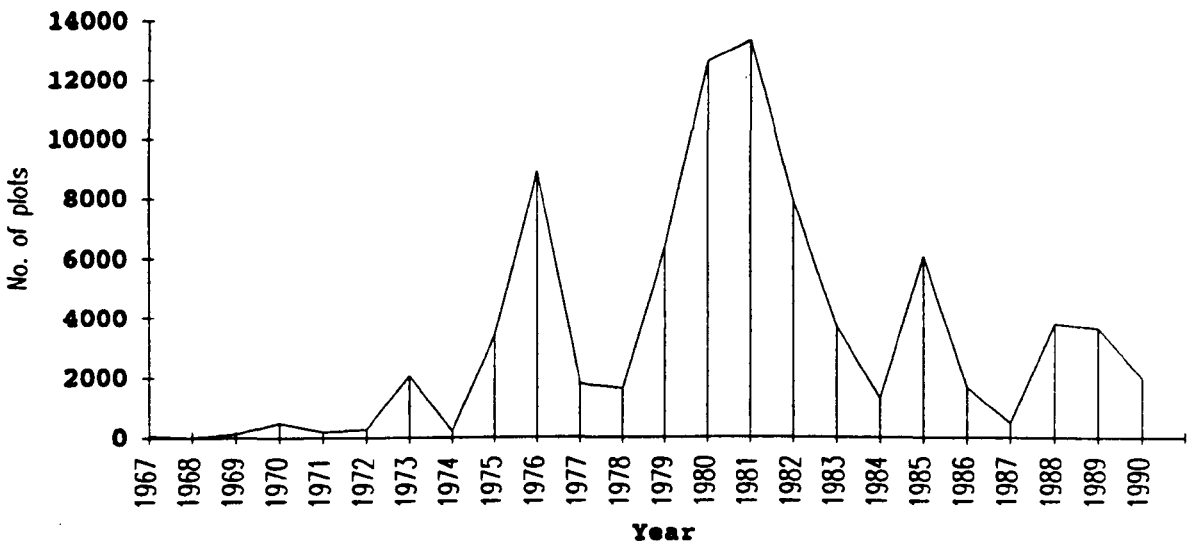
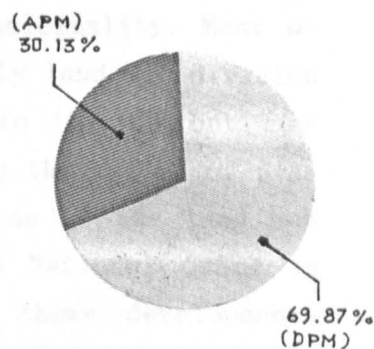


Figure 5.20 : Total landsubdivision plots supplied into land market.
(source: Medina Municipality)

PERIOD OF PLOTS SUPPLY	STATISTICAL INDICATORS	NO. FO PLOTS	MEAN	%
TOTAL PLOTS SUPPLIED DURING THE MDP MAKING PROCESS (D.P.M)		44011	8802.2	69.87
TOTAL PLOTS SUPPLIED AFTER MAKING THE MDP (A.P.M)		18977	2711	30.13



Table(5.2):Land subdivision plots supply during and after the MDP making process.

SOURCES OF PLOTS	STATISTICAL INDICATORS	NO. OF PLOTS	MEAN	%
PLOTS SUPPLIED BY THE PRIVATE SECTOR		19034	3806	43.25
PLOTS SUPPLIED BY THE MUNICIPALITY OF MEDINA		10475	2095	23.80
PLOTS SUPPLIED BY THE MINISTRY OF DEFENCE		14502	2900	32.95

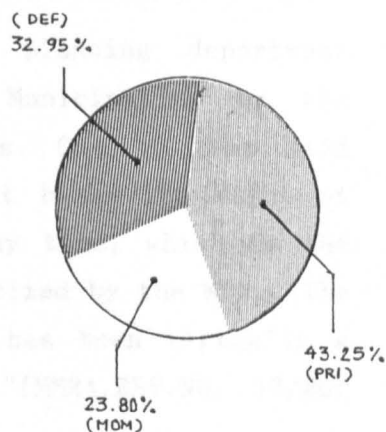


Table (5.3) : Sources of landsubdivision plots supply during the MDP making process (1979-1983)

SOURCES OF PLOTS	STATISTICAL INDICATORS	NO. OF PLOTS	MEAN	%
PLOTS SUPPLIED BY THE PRIVATE SECTOR		4291	613	22.60
PLOTS SUPPLIED BY THE MUNICIPALITY OF MEDINA		14696	2099	77.40
PLOTS SUPPLIED BY THE MINISTRY OF DEFENCE		0.0	0.0	0.0

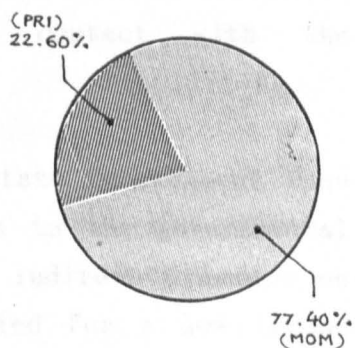


Table (5.4) : Sources of landsubdivision plots supply after making the MDP (1984-1990)

not an effective tool in intervention by the municipality. Most of the the developments between 1979-1990, especially land sub division activities occurred in a way that did conform to the MDP outlines and probably many of them were carried out during the period of plan making process (between 1979-1983). This was true of the land sub division developed by the Defence Ministry and National Guard in addition to the private sector. And most of these developments happened within the area about which the MDP issued the following warning: "Bulk of the land outside the Plan Period belongs to the private sector or Defence or National Guards, this will prompt the local authorities to undertake development of such areas perhaps much earlier than the scheduled period." (MMRA,REP. NO.9:PP.221).

In this matter several officials in the planning department justified the weak intervention from the Municipality by the inconsistency between polices and regulations. One of them said there is a decree from Ministers Council that backs the right of land owners to develop their properties in any time, which is the continuity of the situation realized and criticized by the MDP. "The process of physical planning and development has been virtually a laissez-faire in the kingdom until recently "(MMRA.REP.NO. 17/20: PP.151).

In addition to the lack of co-operation from the other governmental agencies which occurred, in particular, through the process of subdividing lands into plots by some agencies such as the Ministry of Defence and National Guards, and distributing the plots as a grant to their employees who in some cases (mostly the National Guards' cases) develop their lands without any contact with the Municipality.

Furthermore, the establishment of the Real Estate Development Fund (REDF) by the central government, in addition to the governmental land subsidy policy (See Sect.3.3) reflected indirect pressure on the Municipality. Because many citizens applied for a low income land subsidy with the aim of applying for a loan from the REDF (land ownership is a major requirement for such a loan). The municipality is the only governmental agency responsible for managing and

implementing the land subsidy scheme. This in consequence led the municipality to look for the optimum location of land within its ownership, which mostly falls outside the proposed areas, for phased development, by the MDP.

Additionally another type of pressure upon the urban planning machinery occurred through what is labelled "public land infringement" which refers to a process by which individuals transfer public land to their ownership without an official authorization. This paradox stems from the nature of the law. In Saudi Arabia the legal system gains its credibility and power from two sources: (a) The Sharia' Law which is based on the theological interpretation of Qura'n and Sunnah⁵ ; and (b) decrees approved by the King or the Council of Ministers.

However, the Governmental Decrees are assumed to be based on the Sharia' principles, but in some cases the variety of Sharia theological schools make the case problematic in terms of the influence of the governmental decrees and laws.

In this situation, people who practiced this process, mostly appealed to Medina Court and based their claims on one of the Sharia institutions which called "Ihya". It means that dead land which belongs to nobody can be acquired by anyone who revives it, i.e. brings land to life by developing it either by building or by planting . This concept and principal was adopted by the Chief of Justice in Saudi Arabia in 1957. And, although several Decrees were sanctioned to control this problem and solve it, (for example Decree No. 4512 in 1958, No. 806 in 1959, No.1003 in 1966, No. 24540 in 1968, No. 328/5 in 1970, No. 24/5 in 1978, No. 4/A/1969 in 1978 and lastly No. 206 in 1984) the problem has continued especially in Medina. The Director of the Land Subsidy department said that one of the factors that influences this issue is the variety of judgements according to their different interpretations of Sharia's various perspectives. In addition to the validity of official aerial maps produced by the Municipality, as a presumption should be taken into

⁵ See Glossary

account by the judge in issuing title deeds for land claimed as a revived land.

Figure (5.21) shows the various locations in Medina where this problem occurred. Consequently, the Municipality in Medina in continuous consultation with the Deputy Minister for Town Planning (MDTP) took action in response to these pressures, in particular drawing upon experience in Jeddah and Riyadh in dealing with the same phenomenon⁶. Farsi concluded from his experience as a Mayor for Jiddah Municipality. "It is no doubt that providing sub divided lands by the Municipality involves positively in reducing the public land infringement phenomena. The lands subsidy through provided planned and sub divided lands prevents whoever wants to build a house for himself on an infringed public land. Because he will find a ready planned and service land which provides him with a suitable environment to establish a house in a legal way." (Farsi, 1986).

The Ministry Deputy accordingly convinced the Municipality in Medina to speed up the provision of sub divisions. The Director of Land Subsidy justified the process of planning and sub dividing lands outside the proposed phasing boundaries by the MDP, as a result of two factors; (a) The difficulties facing the Municipality in acquiring sites within the inner city due to the high price of land (b) The rapid growth of urban areas especially the unauthorised and squatter areas saying "instead of being faced by squatter and unauthorised developments in the future, it is better to provide these people, who might potentially violate public lands, with a planned and sub divided sites even if these planned sites fall outside the MDP phasing boundaries.

In addition to the long range programme was being discussed by the MDTP during the first phase period of the MDP.

The idea of the long range programme has occurred as a consequence of the similar problems that have appeared within the major Saudi cities. The programme aimed to limit these problems and direct the

⁶ The Director of land subsidy stated that Medina Municipality learned from Jeddah experience in solving the squattered and unauthorised developments

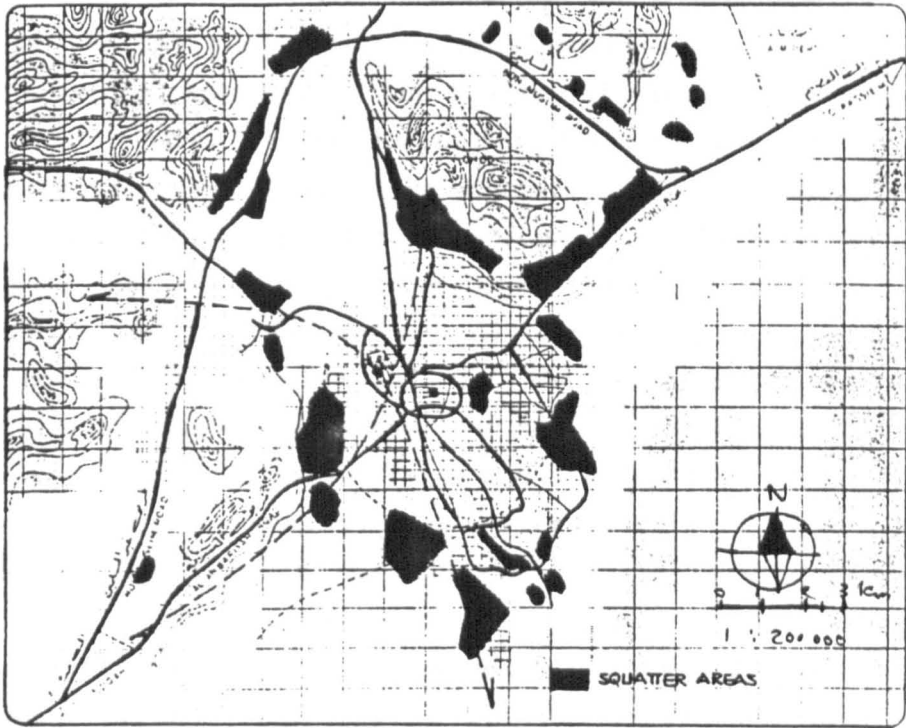


Figure 5.21 : Locations of the squatter and unauthorized development
(source: MMRA, Report No.8)

future development from 1985 until the year 2005. It involves mainly two components; (a) an ultimate boundary for future expansion of the city (b) boundary for the phased development from 1985-2005. Hence, the main concept of it is the same as the MDP's programme; the only difference was the time frame, in addition to its legal support as the new programme approved by the Council of Ministers in 1989. The relevant point here, is the locational distribution and design of the phasing which was affected considerably by the location of the land sub divided and supplied for development by the Municipality in addition to some major projects such as the Third Ring Road which was proposed to link the new sub divided areas, outside the MDP phasing boundaries, together and with the center of the city (see fig. 5.22). This therefore, means that the Municipality and the MDTP tried to respond to the market force and its impacts by sub dividing land and offering it for development, even if this response neglects some specific outlines of the MDP such as the phasing programme, because they had already been neglected by private action which the municipality could not control. The municipality did, however, take into account the basic strategy for development proposed by the MDP, i.e. the compact and concentric strategy of development.

The process of responding to the market force including the omission of the specific outlines of the MDP, with the late production of the MDP did, indeed reduce the credibility of the Plan. A great number of the MDP's copies including Atlas copies and other reports were allowed to gather dust in the municipality's main store. Though some of the offices in the Municipality held some of the MDP's Reports nobody appeared to have the time to read them. One of the officials said to me "You are the only person who actually read the MDP's Report", another official shouted when I showed him the deviation of the actual developments from the proposed phasing saying "The Plan is a nothing but talk". When challenged as to what he meant by this, it transpired that he felt it bore little relation to the reality of development decisions that he had faced daily in his long experience in the Municipality. Then he added "You should realize that planning is a political decision not fancy maps and designs." This attitude was confirmed by interviews with the Directors and Officials in the other governmental authorities. All of them, indeed appear to have

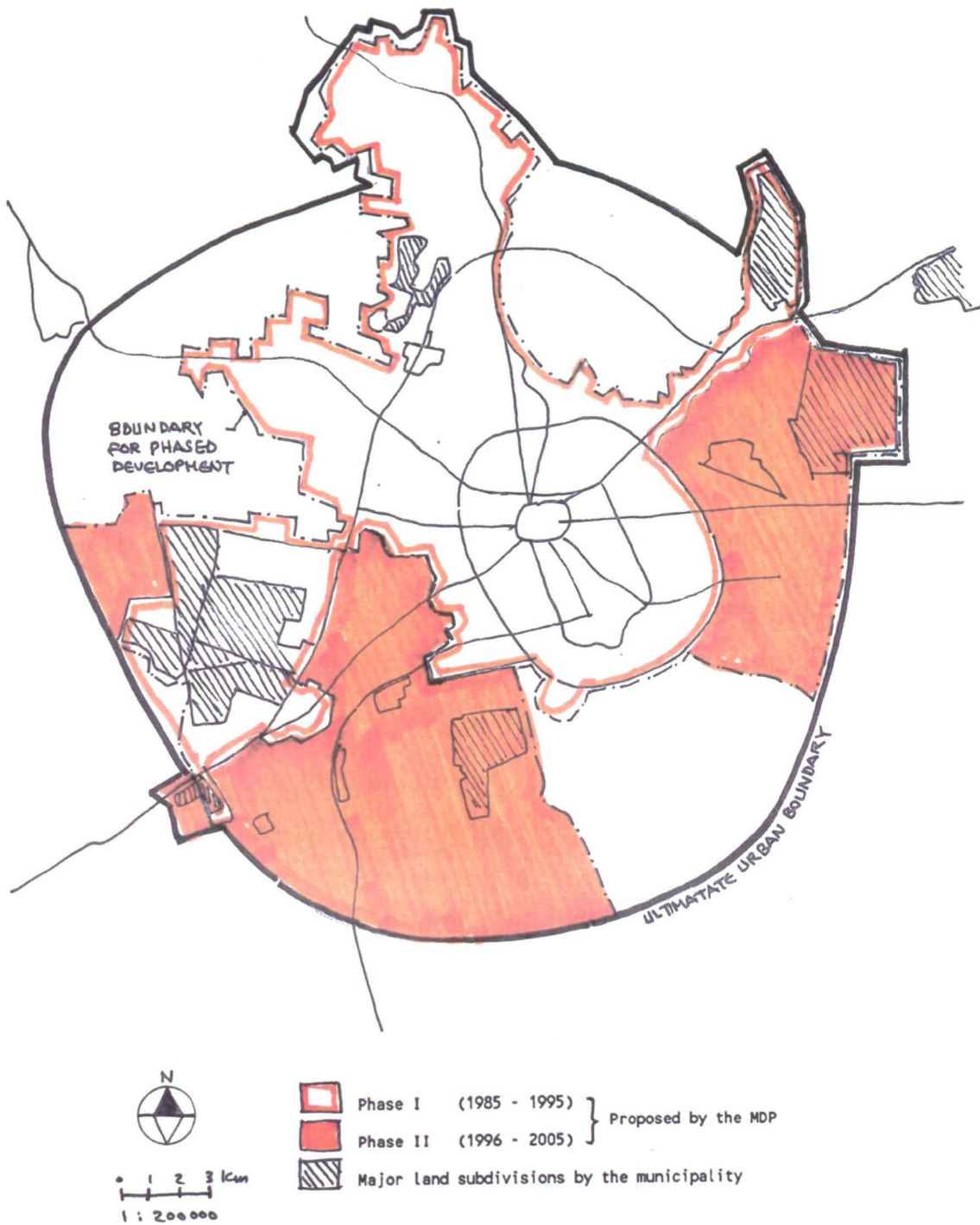


Figure 5.22 : The new phasing programme for development in Medina.
 (source: MMRA, Medina urban boundary project, 1987)

little idea about the MDP and have not received a copy of either the MDP reports or its Atlas. This means that the planning machinery itself has not adopted the MDP completely as an essential tool to direct the physical development in Medina. Another fact here which may explain the position of the MDP, is that the Plan has never received authorization from Council of Ministers although this authorization was highlighted by the MDP "The formal approval of the Plan by the highest authority concerned should take effect, as soon as possible, from the date of its submission in order to establish a status of all the land uses and development activities". (MMRA, REP. NO. 9: PP. 214).

5.2.2 Factors Influencing the developments of Essential Utilities :

As a result of the urban physical expansion pattern and position of the MDP, the development of the essential utilities have been influenced by the pattern of the urban developments and growth from one side and by the structure of the authorities responsible for developing these utilities.

Essentially, the MDP based its recommendations for these utilities on the existing conditions in 1979 and on the plan of each of the authorities concerned. Each authority concerned had its own programme and plan. For example, the Water Supply Network was designed by a Canadian Consulting firm called "CANSULT". The Plan of the network was designed to cater for the ultimate demands up to 1996. It included the design of the distribution system, construction of reservoirs and pumping stations. The sewerage network was designed by a company from Lebanon called A.C.E., but the plan of the network developed and improved by the authority with the consultation of CANSULT firm in 1979, to cover the demands up to 1990. (MMRA, REP. NO. 5 IV)

The Telephone and Electricity Network has different type of plan, because both of them were linked with a national centralized network coordinated by a long range plan. For instance, the Government aims to connect the whole Kingdom with one electric network in the

future. This aim has been and is being implemented through the phased programme to centralize the network.

Its idea is to establish central high capacity generating stations to cover the electric loads in the area served by the project. After amplifying the voltage from 13.8 K.V. to 132 K.V. transmission lines connected with the generating stations to carry the electric current to supply the maximum possible number of cities and villages in these regions. (Electricity Corporation, 1986) However, Medina was originally independent of the national network and had produced electricity locally, In 1979, but later on it was linked with Yanbu regional station. Recently, the corporation approved a project to link Medina Electricity Network with Rabegh high capacity centralized stations. (MMRA, REP.NO.5 IV and Medina Newspaper, 1990). Likewise, the same concept of centralization is being applied to the Telephone Network, and Medina was one of the several cities and small towns included within the Western Region. The distribution of telephone lines starts from the National Center to each region, then each region distributes the lines to the included cities and small towns, according to their estimated and forecasted needs⁷ .

In both authorities, WSA and STC the interviewees emphasized the financial difficulties saying "Most of financial budgeting programme were approved within the frame work of National Five Year Plan have not been implemented successfully because of the yearly dynamic changes in money flow in addition to the bureaucratic complexity of the National Ministry of Finance.

Both authorities refer to the regional office which adds to the complexity of the process of co-ordination between the governmental authorities concerned in urban development. The Mayor of Medina Municipality highlighted this problem saying: "most other governmental authorities do not have the specification of the future plan either the financial or the technical when they needed and requested in the higher community for co-ordination in Medina."

⁷ Based on an interview with the Chief of the Engineers in the Saudi Telephone Headquarters in Medina.

In the case of WSA, the Director of Engineering Department said that most of the technical plans were changed because of the financial problems.

In addition, in some plans to the inaccuracy of the needs and demand predictions. He added: "sometimes the pattern of the urban development is a problem and retards the process of expanding the network to areas such as the Western Harrah, and other squatter areas."

In regard to the telephone extension the engineer said that the unorganised developed areas make expanding the permanent underground connections difficult, but mostly it is managed by extending an overhead cable.

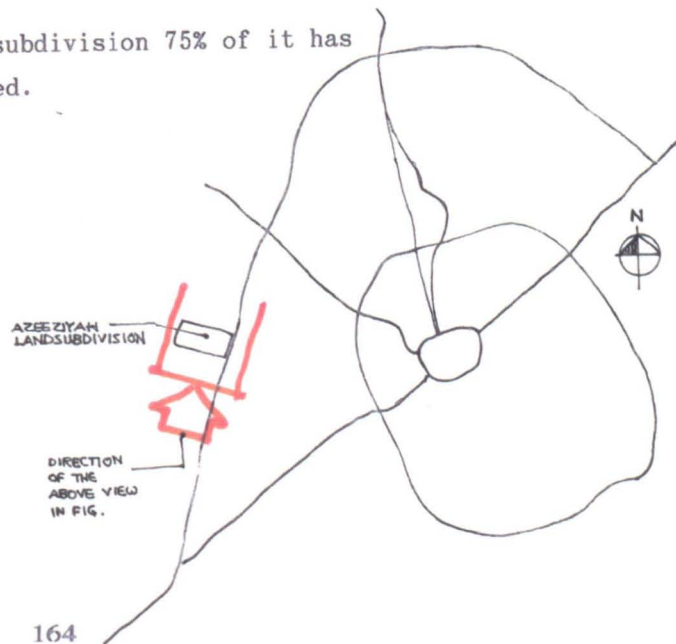
Moreover, some networks depend on their successful implementation on completing some parts of the whole network materials. For example, in the Water supply network successful implementation depends on the completion of YDP. Similarly, the Sewerage Network depends on the completion of the Major Treatment Plan at the Northern side of Medina. (Mushrif, 1988)

In terms of the requirement to expand the network and connect it to an individual property, both authorities WSA and STC based their decisions and approval upon the intensity of development in the land sub division. The comparison between figure (5.8) and figure (5.23) where the development of land sub division in figure (5.8) is less intensive than the one in figure (5.23). Land sub division in figure (5.8) does not connect with water or sewerage or telephone utility while the one in figure (5.23) is covered by this utility. Figure (5.24) supports this fact when it shows the significant relationship between the existence of the utility service and the intensity of the development in land sub division.

Last but not least, some of the very important projects could interrupt and put pressure on the development of the networks. For example, the project for the enlargement of the Prophet's Mosque includes an urban renewal scheme for the whole central area and a



Figure 5.23 : Azeeziyah land subdivision 75% of it has already developed.



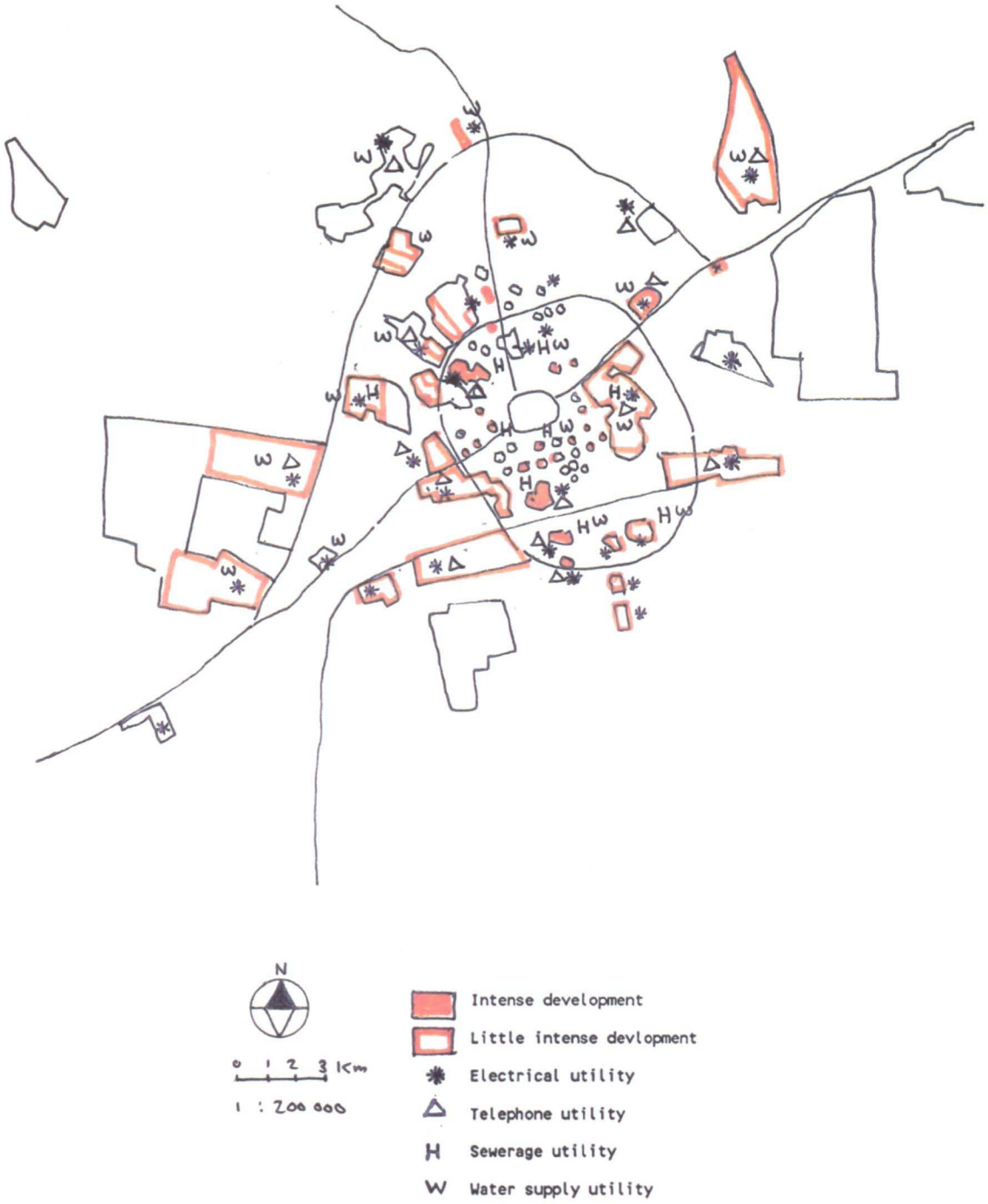


Figure 5.24 : The relationship between degree of development in land subdivision and utilities supply.

very large underground car park. This project requires a comprehensive re-adjustment of the existing network's connections and lines. This consequently, needs an adjustment of the financial budgeting programme too. Another example is the Miquat Mosque which is located in Abar Ali Area about 15 Km from the central area, and it needs a huge water facility especially in the pilgrimage occasion.

Conclusion:

It is clear that the pattern in the physical outcomes that have occurred during the last ten years in Medina, as a consequence of urban physical expansion, to a great extent did not conform with the phasing programme which was proposed by the MDP. Furthermore, these occurred outcomes were influenced, in its pattern by the nature of the urban planning itself, land ownership and market, and co-ordination mechanism between the public agencies.

In fact, the urban planning process influenced the physical outcomes through two respects. Firstly, the MDP making process which engrossed about four years (i.e. most of the first phase period of the MDP time span) accompanied with weak communication and co-ordination between body was responsible of making the Plan and bodies were responsible for either negative power of planning (control system) or positive power (public projects). Secondly, the considerable involvement of the MMRA central office in the local urban planning process which was reflected through the following up system of the plan making process, where all reports regarding the MDP proposals, recommendations, and progress had to be reviewed and approved at the central office of the MMRA. In addition, the involvement of the central office of the MMRA appeared through the process of controlling land sub division. In fact, the MMRA encouraged the municipality between 1979-1985 to develop some land sub division, in term of responding to the land market from one side and to implement the governmental urban land subsidy scheme from the other side. Also, the MMRA requested from the municipality to suspend and stop giving any permission for land sub division in 1986, until the outline of the Urban Boundary Project of Medina

Metropolitan approved. The project, in fact, was one of many projects, aimed to the same objective, which included in the national work and strategies for spatial and physical development and planning. It is the lack of skills and experience in the local level especially during the economic boom period which led the MMRA to involve and follow up the progress and performance of urban development in Medina, even the action is not more than what sweeper do, namely, to follow the action of other people then manipulate and try to get rid of the undesired impacts.

Another factor which was observed considerably was the land market which can be considered as the dominant factor which influenced the pattern of the physical outcomes which have occurred. The structure of land market apparently was a consequence of two contextual factors. Firstly, the dominant influence of 'laissez-faire concept', which implies haphazard and unplanned development, based on the free market ideology and freedom of property utilization. In addition to the problematic and unclear relationship between the governmental regulations (i.e. were sanctioned in the central government) and the principals and laws of the Sharia'.

Lastly, the co-ordination mechanism which appeared too weak to utilize the public projects (positive power) in order to guide the urban physical expansion, in particular, the essential utilities which were either very behind compared to the pattern of urban physical expansion, or trying to follow and catch the rapid growth. In fact, most of the local authorities responsible for these utilities do have their own frameworks either long term or short term which were being drawn up at the regional or central level. In the same time these authorities although do have channels to communicate and co-ordinate with the municipality have not accessed the MDP as a document which includes a long term framework for the essential utilities.

CHAPTER SIX

THE LAND USE STRUCTURE

Land use structure is one of the main components of the MDP. It is, in respect to the research purpose, the second macroscopic case, which can be utilized in observing the implementation process. The chapter will consist of the description of land use structure proposed by the MDP. Then the degree of conformity between the actual development and the structure proposed by the MDP will be assessed. As a result, the answer for "why" question through examining the control system (negative power) and the public projects initiation (positive power), is to be presented.

6.1 The Outlines of the Land Use Structure proposed by the MDP:

In view of the locational distribution of land uses, the MDP draws a framework that suggests a specific pattern for land use in Medina, based upon the concept of compact and concentric form of physical development annullating around the central Mosque. "All the land uses have been rationalized in terms of their inter-relationship and their conformity with the ideals of the Islamic cultural concept which advocated compact/concentric form of physical development..." (MMRA, REP. NO 9: pp.107)

In fact, the land use plan aimed to fulfil the following purposes:

1. To earmark land needed for various uses up to the year 1415 H (1995) and determine the metropolitan boundary for ultimate development beyond 1415 H (1995).
2. To channe urban development into the right direction and at right time through phasing in order to prompt proper utilization of land and discourage under utilization of land for speculative purposes.
3. To ensure prudent distribution of land in all parts of the Metropolitan Area for various uses e.g. residential,

commercial, industrial, agricultural, institutional, cultural and religious facilities.

4. To control population growth by using different density standards in different parts of the Metropolitan.
5. To obviate unauthorised and incompatible uses in order to create a healthy and aesthetically pleasing environment.
6. To achieve a desired visual form of the city through zoning devices and regulatory controls regarding height of buildings and positioning of major land marks.
7. To ensure successful implementation of the development policies as recommended in the Technical Report No. 8 (Land development policies).
8. To materialize the Islamic cultural concept in accordance with the compact Development Strategy as recommended in the earlier sections.
9. To synchronize development with the provision of utilities and services.
10. To coordinate all the major development projects, whether existing or committed e.g. land subdivision, military lands, public and private sponsored projects and road networks etc. (MMRA, REP. No 9: pp.97-98).

6.1.1 Land Use Pattern of Medina as proposed by the MDP:

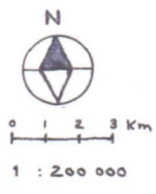
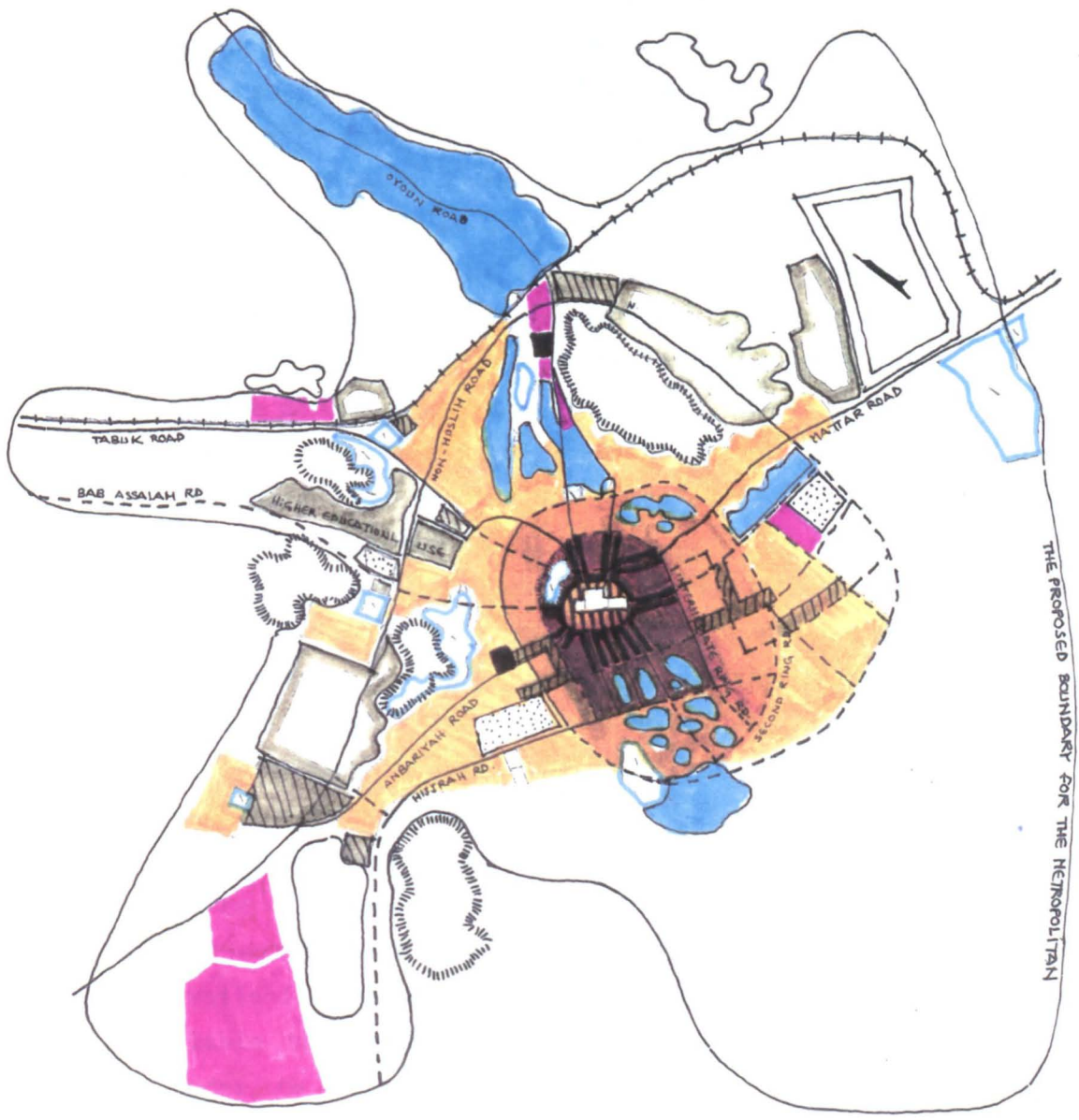
Figure (6.1) manifests the pattern of land use allocation and distribution. The MDP highlighted a certain characteristic, for the land use allocation in Medina, as an intended and desired outcome. However, because of the considerable generality in figure (6.1), some of the highlighted characteristics by the MDP, may be noticed directly from the figure. Other features of the proposed land use structure could be figured out from other policies such as the Action and Cultural Area Plans, and through the detail plans included in the Execution Plan Atlas (see section 3.4.2.3.). This case is, however more appropriately considered of the a micro level because it can be implemented as an individual urban renewal

project, although it may serve in exploring the properties in the macro level. Consequently; the presentation will include firstly a description of the land use structure in general through the long term general land use plan, then the specific elements of the land use structure will be described through the land use pattern proposed for the Western Harrah Action Area, in addition to describing more specific features by taking a part of the land use plan proposed for the Western Harrah Area. Specific proposed land uses as represented in the MDS's atlas in 1:2500 scale, are then investigated.

The general characteristics:

The general characteristics that can be observed from figure (6.1) and are, actually relevant to the present study's objectives, are:

- The concentric rings of development highlights Haram (central mosque) as a strong center and ensures well balanced trends of growth in all directions.
- The organic articulation and clear hierarchy of land use functions. This hierarchy, in fact starts with the Central Area which mostly contains mixed residential and commercial use in addition to single uses such as the religious and administrative use. The mixed residential and commercial use extends along the major roads lead to the center until the Intermediate Ring Road. The residential use spreads within and around the central area, extending as far as the Non-Muslim road where it meets institutional and industrial uses which constitute outermost layer of the built up area.
- The hierarchy of residential levels of density which include a medium density (120 P.P.H.) inside the first ring road, high density (150 P.P.H.) between the first and Intermediate ring roads, medium density again between the Intermediate and second ring roads, and a low density (40 P.P.H.) beyond.



- Low residential use (40 p/h)
- Medium residential use (120 p/h)
- High residential use (150 p/h)
- Commercial-residential use
- Commercial use
- Industrial use
- Recreationl use
- Agricultural use
- Pilgrimage service land
- Governmental use
- Defence & national guard land
- Waste disposal area
- Mountain
- Existed road
- Proposed road
- Proposed railway

Figure 6.1 : The pattern of land use allocation proposed by MDP.
 (source: MMRA, Report No.9)

- The distribution of some governmental land uses along the major streets in the east and south west of the Intermediate ring road, in addition to Non-Muslim road in the north and in the north-west along Tabuk road.
- The provision of recreational land uses, which include parks and sports stadiums , in particular, a large city park to be sited to the south of the airport around Alagul Dam and lake, in addition to five smaller public parks and six sports stadiums mostly in the western part of Medina and to the south of the second ring road.
- Three large sites were earmarked for pilgrimage services and facilities. Two of them were located in the western side while the third in the east.
- The industrial land uses (primarily consisting of light and medium industry) were mainly located outside the urban block. As could be seen in figure (6.1), the industrial land uses were distributed in different sites in the south west of the major industrial area while other minor areas in the north west, north, and east.
- The agricultural land uses, as clearly shown, were recommended to be developed outside the Urban Block, mainly in the north and south where soil is favorable and water is sufficiently available. Also, some small parcels of agricultural areas within the Urban Block were recommended to be preserved in order to be utilized for community facilities and visual amenities.
- Other land uses can be seen in figure (6.1). They, in fact, involve the existing airport in the north west, proposed waste dumping areas in the north, west and south, and National Guard Ministries land which are considered as land not available for development, mainly in the north near to the airport and the west along Tabuk and Non-Muslim road, and a distinguished mountain areas(MMRA,REP.NO.9).

The specific characteristics:

Furthermore, the land use structure envisaged by the MDP, includes other specific features, which can be figured out through the other detail policies as mentioned before. The Western Harrah will be taken as an example to observe these features. though it will be dealt with in more detail subsequently Figure (6.2) shows these features in addition to the characteristics mentioned above:

- the allocation of commercial, recreational, educational, health of urban units which was proposed by the MDP. The urban units are; neighborhoods as the smaller units, then the communities and lastly the districts which are the largest units. Each urban unit is to have its own local center which will contain specific functions and facilities to cater for the local needs and requirements. For example, the neighborhood is recommended to be provided with a primary school for boys, one for girls, a clinic, maternity clinic, post office, tot-lot, playground, park, commercial center, Jami' mosque and eight small mosques.

In fact, the MDP anticipated 142 neighborhood centers, 54 community centers and 10 district centers, in 1995 for the whole city (See Appendix A-7)

- the second feature desired by the MDP which can be seen in figure (3.12), in sec. 3.4.2.5 is the preservation of cultural and historical areas. For example, the seven mosques in the north west of Western Harrah and ottoman train station in the south west are highlighted to be preserved and developed as cultural and historical areas.

Furthermore, we can observe a specific location and size of lands allocated and proposed by the MDP for different types of land uses through figure (6.3). The plan, as can be seen, composes of six parts. Each part is, in fact, located in a different sheet of the MDP's Atlas (see sect.3.4.2.3). However, the plan shows

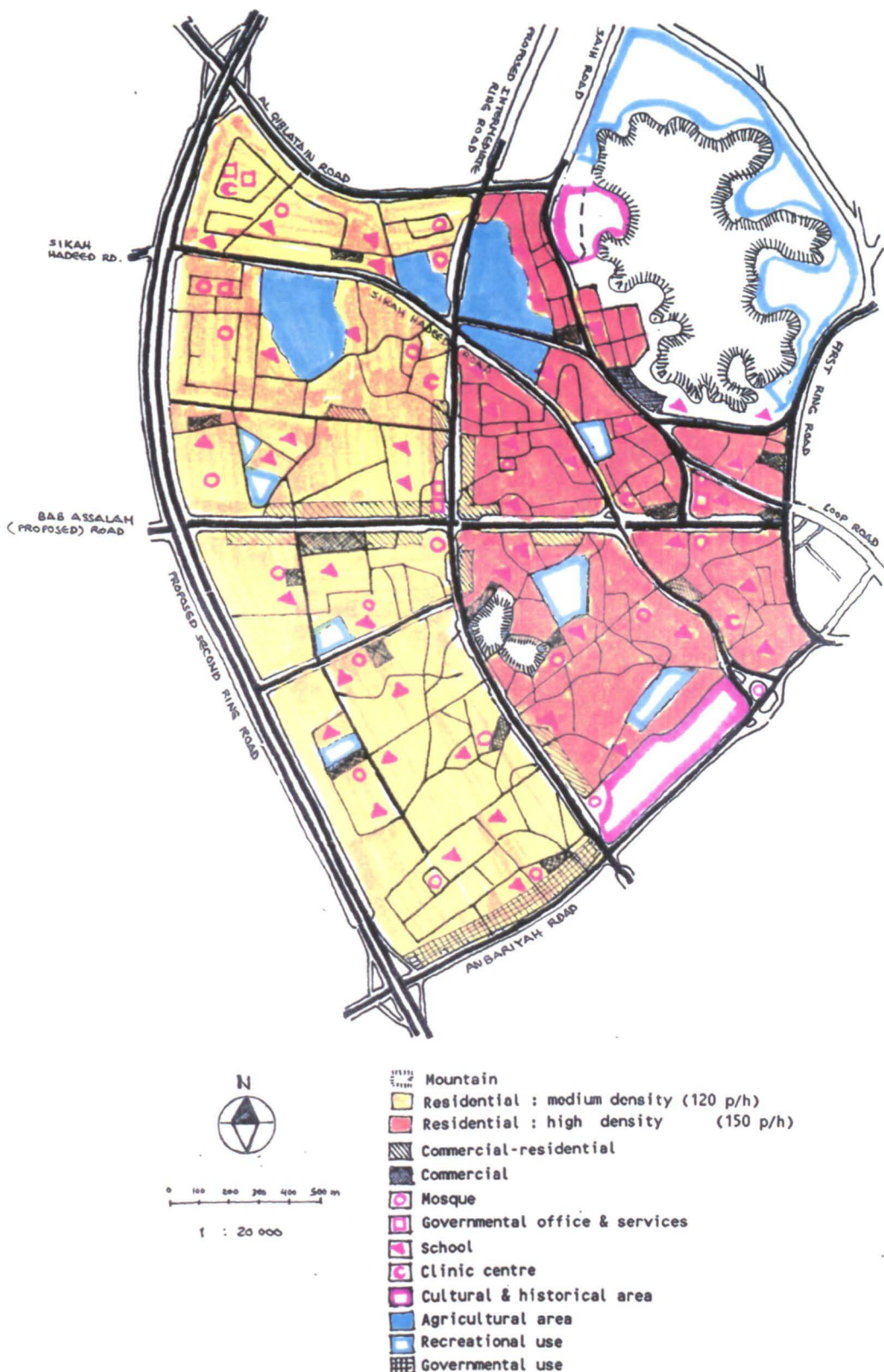
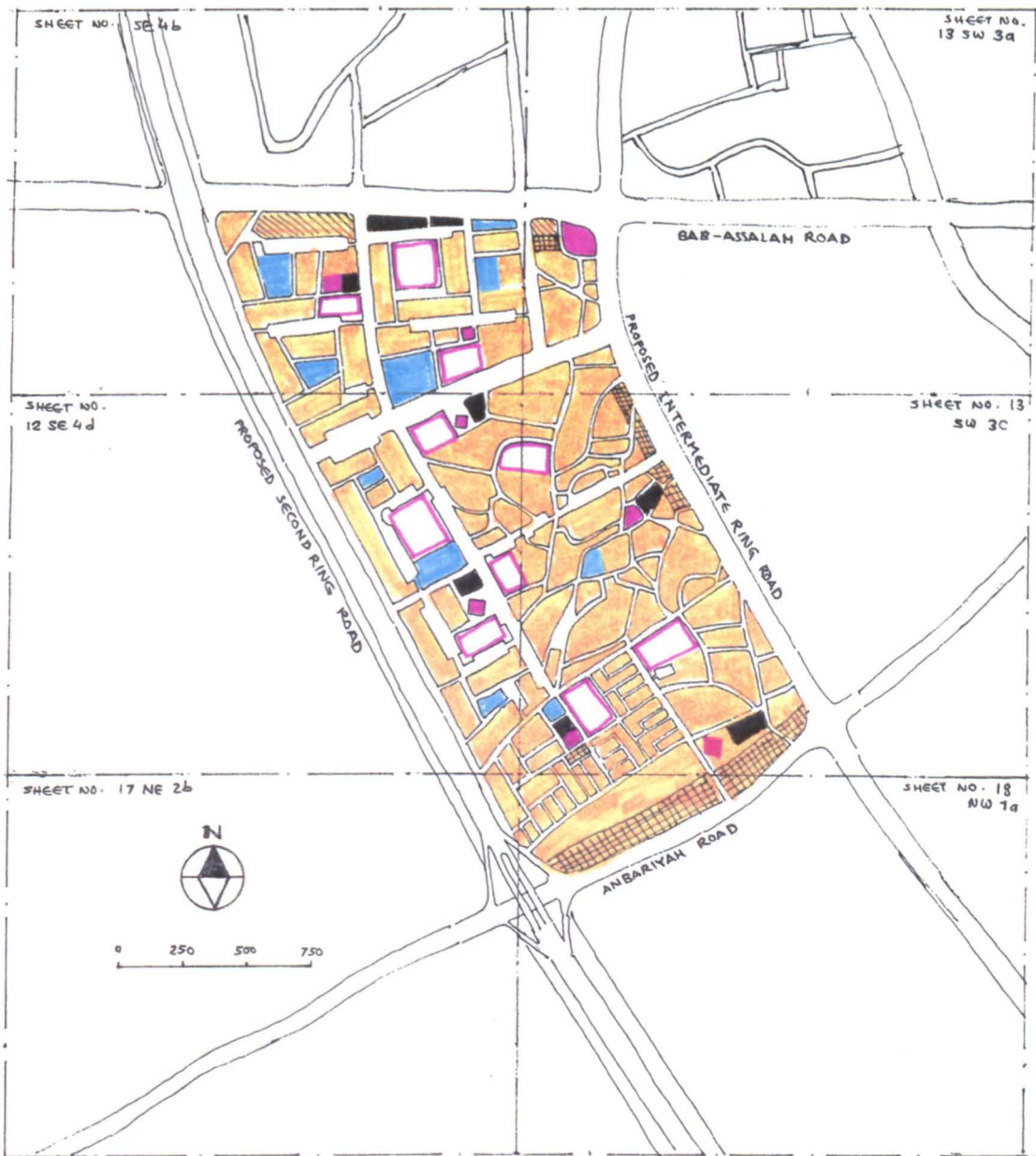


Figure 6.2 : The pattern of land use allocation proposed by MDP in the WHAA.

(source: MMRA, Report No.12A)



- Residential
- Recreational (green areas)
- Schools
- Mosques
- Commercial centres
- Commercial-residential
- Governmental
- Road and parking lots

Figure 6.3 : Specific location and size of different land uses proposed by the MDP in the south western part of the WHAA.
(source: MDP Atlas)

specifically the location and size of 10 schools, 10 green areas, 8 mosques, 7 commercial centers and location of other uses such as residential, governmental and commercial-residential uses. Also, the figure clarifies the pattern of local traffic network including parking lots.

Accordingly, to examine the conformity of the actual land use pattern, with what is proposed by the MDP, it is appropriate to describe the outline comprehensively the structure of land use in the Western Harrah Action Area as an example for the specific policies and recommendations included in the MDP. This area is however one of the most important areas in Medina that required immediate planned action. "The Central and Harrah Gharbia Action areas together, constitute the most complex and sensitive parts of the whole metropolitan area." (MMRA, REP.NO.12A:PP.X) Moreover, the MDP considered the success of the Action Area Plans implementation as a base for the success of the MDP implementation itself." The success in the planned development of these areas will obviously, contribute significantly to the overall success of the Master Directive Plan of Medina." (Ibid: PP.X)

6.1.2 Western Harrah Action Area (WHAA) Land Use Structure:

The WHAA is one of four action areas and was selected to be developed within a planned framework and emphasis as a given first priority in the implementation process of the MDP. It is, in fact, located in the western part of Medina directly adjacent to the western part of the Central Area. Figure (6.4) shows the location of the WHAA in Medina.

The WHAA Plan's outlines involve, in addition to the structure of land use pattern; a specific framework for the essential utilities and services required in the area. However, the concern here was only with land use structure.

The land use structure recommended by the MDP for this area, was based upon the adopted development strategy for the same area. In

fact, of three possible strategies, the one which is shown in figure (6.5) was selected. It has two main physical characteristics:

- (a) The area is divided by the proposed Intermediate Ring Road into two parts, one in the east and the other in the west side of the Action Area. The eastern part contains 6 neighborhoods while the western contains 7 neighborhoods; with an average population of 5000 in each neighborhood.
- (b) The area is divided by both Intermediate Ring Road and Bab Assalam Road (which extends across the area from east to west intersecting with the Intermediate and Second Rind roads) into four quarters. Each quarter is bounded by main roads and streets. (MMRA, REP. NO 12A)

However, in respect to land use structure, the WHAA Plan took into account the optimal use of vacant land, maintenance and preservation of existing agricultural land and the appropriate distribution of population density. In fact, the plan increased the percentage of residential use from 42 percent to 53 percent taking into account the large vacant land available in the area. In contrast, the Plan decreased the population density in the area from an average of 257 person/hectare. to 150 person/hectare in the eastern part and to 120 person/hectare in the western part.

Furthermore, the Action Plan involved the provision of an estimated 47 schools (28 elementary, 13 intermediate and 6 secondary schools); 117 religious buildings (13 large mosques for weekly prayers and 104 small mosques for daily prayers); 13 police stations, 2 fire stations, 13 post offices; 13 social centers; 13 telephone centers; 2 municipal offices and services and 13 recreational areas (parks and playgrounds). All of these functions were specified in term of locations and sizes in the Execution Plan Atlas of the MDP (See sec. 3.4.2.3).

Also, the Action Plan included a specific framework for traffic and road network. It is composed of some improvements to existing roads,

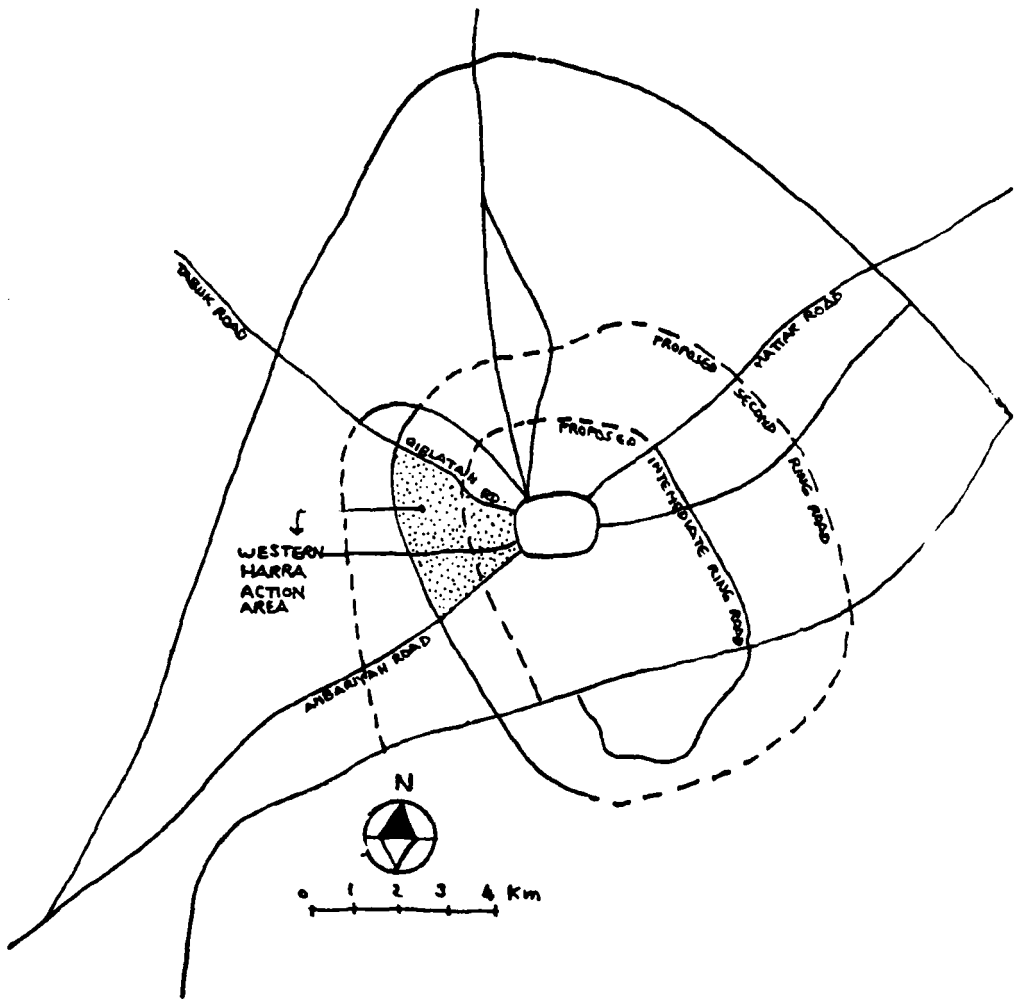
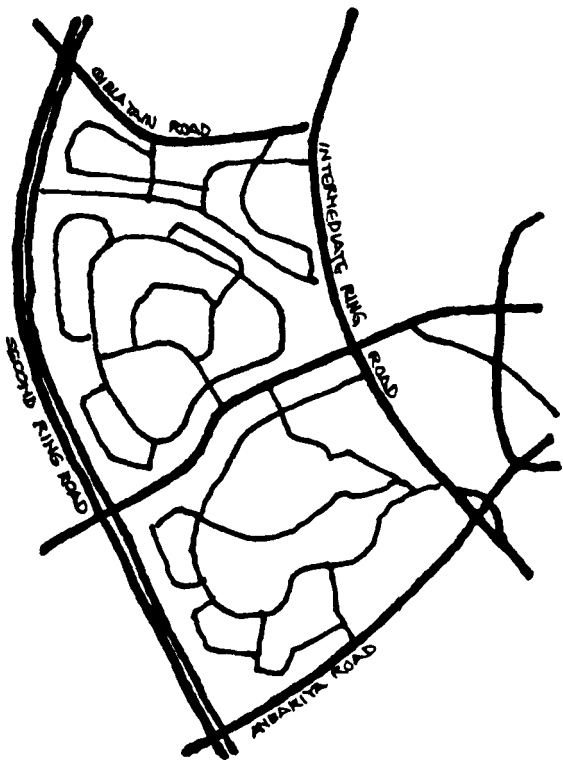
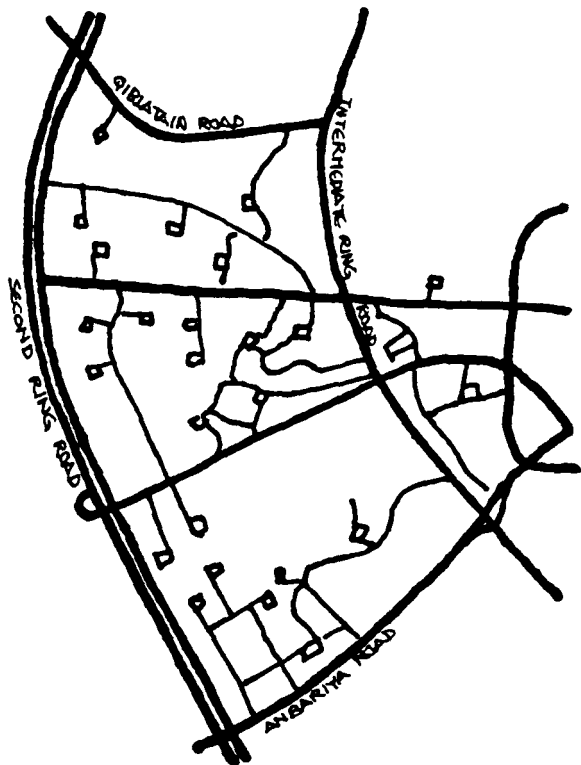


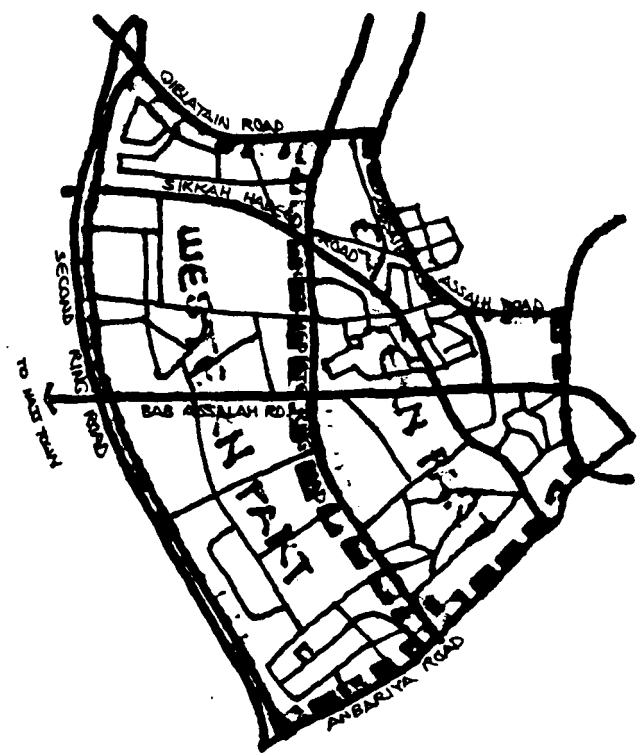
Figure 6.4 : Location of the WHAA.
 (source: MMRA, Report No.12A)



(A) Development strategy I



(B) Development strategy II



▣▣▣ Boundary of districts

(C) Development strategy III
(The selected strategy by the MDP)

Figure 6.5 : Strategies of WHAA development.
(source: MMRA, Report No.12A)

and establishments of new roads, in addition to required parking lots. In fact, the plan recommended to the widening of Sikkah Hadeed

Road to (25) m, and linking Saih Road with the loop road inside the first ring road. In addition, the plan highlighted the importance of carrying out the parts of Intermediate and second ring roads, fall within the area.

These new establishments of local road network included four two-levels intersections. Between Qiblation Road and Second Ring Road, between Bab Assalam Road and Sikkah Hadeed Road, between Bab Assalam Road and Second Ring Road, and between Second Ring Road and Anbarinah Road. In figure (6.3) the different levels of the proposed local collective streets could be observed.

6.2 Degree of conformity :

In this section; the aim is to examine to what extent the actual urban development regarding the land use allocation do conform with what the MDP as specified above. In particular the envistigation will focus the degree of conformity in the existing land use structure in the macro level(in the level of the whole city) and in the micro level(in the Western Harrah Area).

6.2.1 Conformity of the existing conditions of land use structure:

Although considerable differences between the MDP proposals in figure (6.1) and the pattern of development in 1990 can be identified from fig. (6.6), some features of the MDP plan have in fact been implemented. These features include:

- the concentric rings of development around the Prophet's Mosque in the city center which highlights the dominance of the Mosque as an attracted pole of development activities still many of the commercial uses, governmental and high density of residential use concentrating within and around the

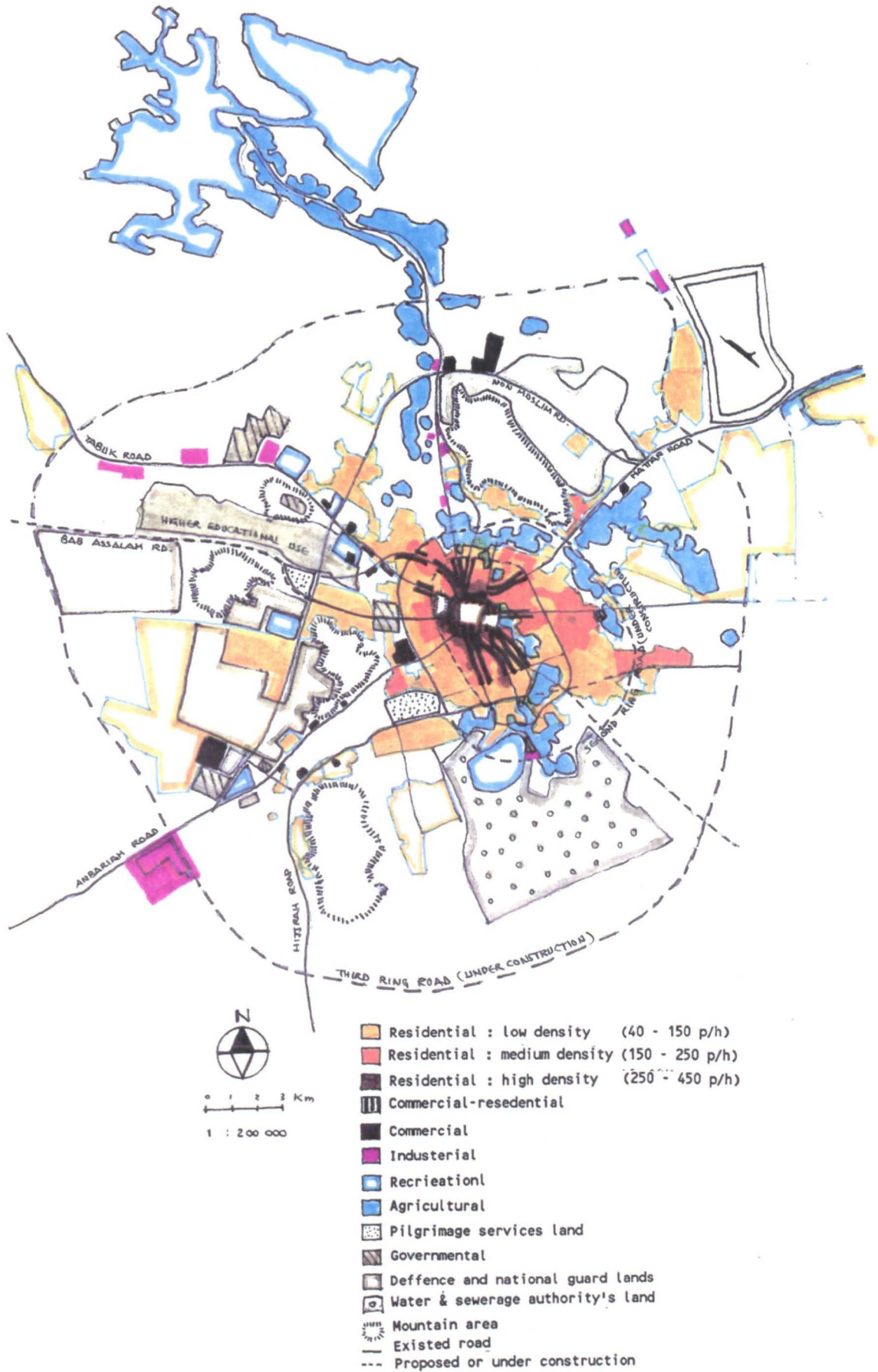


Figure 6.6 : The pattern of the existing land use in Medina in 1990.
 (source: Medina Municipality)

First Ring Road. However, a lot of areas around the Mosques have been demolished and accordingly many commercial uses transferred to next areas and areas outside of the first Ring Road.

- the concentrated commercial use along the main streets within the proposed Intermediate Ring Road, such as Quba, Qurban and Awali streets in the south, sayid Ashohada, Sultana' streets in the north, while Mattar and King Abdullal Azecs roads in the east and Anbariyah road in the west.
- the agricultural development activities and uses, particularly in the north along Oyonn Road, but also to the east and south of Medina.
- the occurrence of industrial developments and uses, mostly outside the urban block. Medium industries have appeared in the south east along Anborigah Road where an industrial town has been established and developed with a future enlargement aim, too. also, in the north west along Tabuk Road where a publishing and printing industry for the Quran (the holy book) was established and is operating, and some car service shops and stores were located in addition to several stone bricks industries. Similarly some car service shops and stone industries occurred along old Tabuk Road in the western part of Medina Airport. Along Oyoun road another industrial warehousing was constructed.

In contrast, the differences between the actual land use developments in Medina and what envisaged by the MDP involve:

- the dispersion of mostly the new residential areas outside the urban block which, in turns, weakened the recommended compactness and concentric process of development. In particular, as can be seen in figure (6.6); large areas have been developed for residential use in the eastern, western, southern and some in the northern and north east and west

parts in Medina. In fact, most of these areas are unserved by the essential utilities and government public services.

- the disparate distribution of population densities in regard to what proposed by the MDP. High density still is the pattern of the Center Area (between 300-450 person/hectare) and 600 person/hectare in some areas such as the north east quarter of the area in the east of Aba-Thar Road, and along Quba Road in the South. also, a density of 250-300 person/hectare appeared in the areas adjacent to Center Area along the First Ring Road from outside specially the eastern parts of the Western Harrah and northern parts of Nazlat Algabour in the south west of the central area. In addition to the northern parts of Awali Area in the south east of the central area and the southern and northern parts of Nusr district in the north of the central area between Sayid Ashohada and Oyoum Roads. Most of these areas fall within the area between First Ring Road and Proposed Intermediate Ring Road. Moreover, a density of 150-250 person/hectare occurred within the area between first Ring Roads and Second Ring Roads especially in the Eastern Harrah, as can be seen in figure (6.6), and in Khalidiyah district in the south east side of the Second Ring Road, while it appeared around Sultan Road in Nusr and Akeeqe district even outside the Second ring Road in Azhari and Naseem land sub divisions in the north west side of Medina. And some parts in the south west outside of the Second Ring road. The rest areas are scattering in the east, north east and west, west, and south do have the lowest density (between 40-150 person/hectare) starting by 150 person/hectare in the areas within the Second Ring road and declining to 40 person/hectare in the outsider areas especially the new developed areas along non-Muslim Road, Azeziyah, First Difa' and Hijjah land sub division, and the areas adjacent to Uhpd Mountain in the western part of it. In sum, the hierarchy of current population density is very high within the central area (300-450 person/hectare), medium (250-300 person/hectare) mostly between first and proposed Intermediate Ring Road and in some parts of the areas between proposed Intermediate and

Second Ring Road, while medium-low (150-250 person/hectare) in the other parts of the same area, and (40-150 person/hectare) in the remaining urban areas.

This, however, does not conform to what the MDP envisaged which included, as mentioned above, a high density (150 person/hectare) between first and proposed Intermediate Ring Road, while the medium density (120 person/hectare) and low density (40 person/hectare) in the Central Area and the area between proposed Intermediate and Second Ring Road, and the area outside of the Second Ring Road respectively.

In the same time the residential uses are dominantly characterized by the high rise building (Although the MDP highlighted the unsuitability of that "in pursuance of the ideals of the cultural concept the plan discouraged the high density development which is generally high rise apartments in view of their social draw back". (MMRA, NO. PP.113), particularly, in the central area and the areas between the first ring Road and the proposed Intermediate Ring Road, in addition to some areas outside the proposed Intermediate Ring Road such as Lehaledia districts, Eastern Harrah, Quba Nazlat Al-Gabour, Western Harrah, Nusr district, Naseem and Akeeqe district and Azeezigah district. Also, some scattered small areas along Non Muslim and Tabouk Road. In fact, some of these areas such as the north eastern quarter of the central area (see fig. 5.5, 5.6 and 6.7) and also along the beginning of Mattar, Sayid Ashohada, Sultanah, Awali, Qurban, Quba Roads and the northern part of Nusr district are dominated by storeys and more high rise buildings. While most of the other areas dominated by 3-4 storey buildings. Some areas are dominated by 1-2 storey buildings such as the low income housing project in the south east of the proposed Intermediate Ring Road, the western parts near to the proposed Second Ring Road, and some areas in the north between First Ring road and Uhod Mountain.



Figure 6.7 : A prospective view of the central area and the adjacent areas. The dominant of high-rise building clearly could be noticed.

- Although commercial and residential uses have occurred within the Central Areas as the MDP outlined, some of these types appeared in areas that were not included in the Plan's recommendations, such as the areas along Sultanah, Tabuk, Anbariyah, Mattar roads in the parts fall outside of the proposed Intermediate and Second Ring Road, as can be noticed by the comparison between figure (6.1) and (6.6). In addition to the occurrence of some commercial uses along non-Muslim road such as sheep and traditional markets in the northern part of it and the commercial exhibition land near to the low income housing in Abar ali Area. Also, the commercial centers along Tabuk Road before its intersection with the Non Muslim Road.

 - the industrial developments among the agricultural farms in the southern part of the Second Ring Road which is mostly car service shops and data processing and production in industries.

 - the considerable increase in the Defence and National Guard lands which are not available for the planned department and difficult to be controlled as we concluded in the previous case. In particular the land along the southern part of the Non-Muslim Road and along Bab Assalam Road.

 - the establishment of some land use functions that are needed but not within the MDP outlines. For example, the recreation area in the northern part of Medina outside the Third Ring Road.
- While some recommended recreational areas by the MDP have not developed and, furthermore, replaced by other type of use, such as the recreational area around the Mountains fall in the east, and within the proposed Intermediate Ring Road around Sila Mountain. Also the park near to Aakool Lake and Dam in the west near to Medina Airport.

6.2.2 Conformity of land use structure in the Western Harrah

Action area (WHAA):

Basically, the WHAA was selected to study either the degree of conformity or factor influenced the MDP implementation, as the plan of this area were considered as a short term programme which was supposed to translate the long term strategies and guidelines of the MDP, into specific and detail structure to be effectuated immediately and given the first priority in the process of the MDP implementation. Taking into account this fact, it is useful to examine the conformity of land use structure in this area with what specified and outlined in detail by the WHAA Plan.

The examination will be based upon the analysis of figure (6.8) which manifests the recent structure of land use in the Western Harrah Area and figure (6.9) which shows some detail about the specific land use allocation currently existing in the southern eastern quarter of the area.

The area, mostly, has been developed and dominated, as can be seen in figure (6.8), by residential use which utilizes about 56 percent of the total area. And although this percentage is close to the proposed one (52 percent for residential use) the pattern of its density is completely out of line with the proposals. In fact, the eastern parts of the area, specially, which are near to the First Ring Road reach to the highest density (about 300 person/hectare), as well as some parts in the middle of the area spreading to the south. Then the adjacent areas either in the north or south fluctuate between 180-250 person/hectare, while the remaining areas, specially in the western part of the area, alternate between 100-180 person/hectare. (MOM, 1986) Correlational, the high rise buildings occurred as one of the area's characteristics. The highest buildings (3 stories and more) appeared in the western parts specially along the First Ring Road, Saih, Qibaltain, Sikka Hadeed and Bab Assalam Road. The percentage of this type is about 24 percent of the total number of buildings in the area, while 28 percent represents the percentage of the 2 storey buildings which fall mostly in the middle part of the area. The rest which is 48 percent involves the one

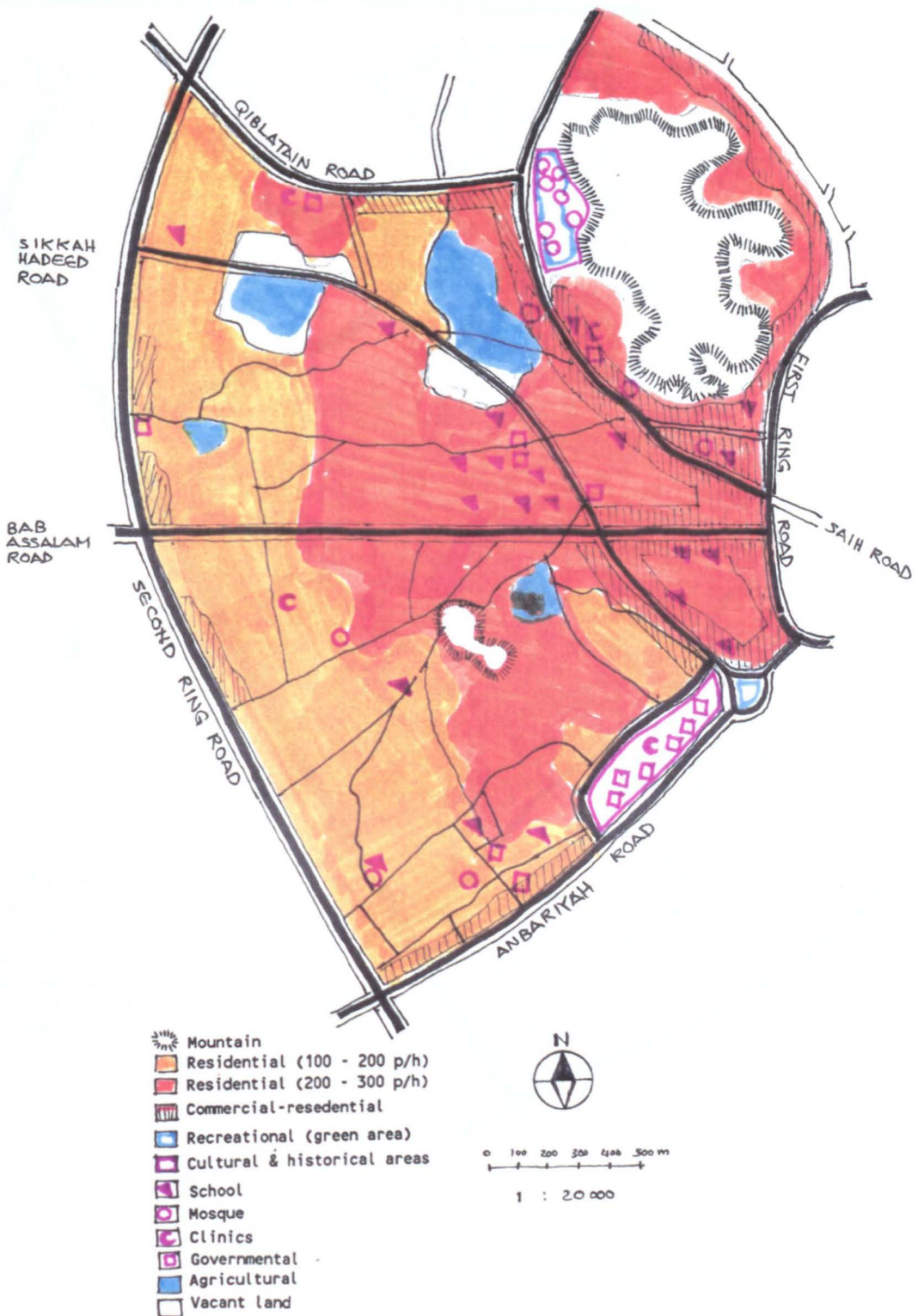


Figure 6.8 : Existing land use structure in Western Harrah area.
(source:Medina Municipality)

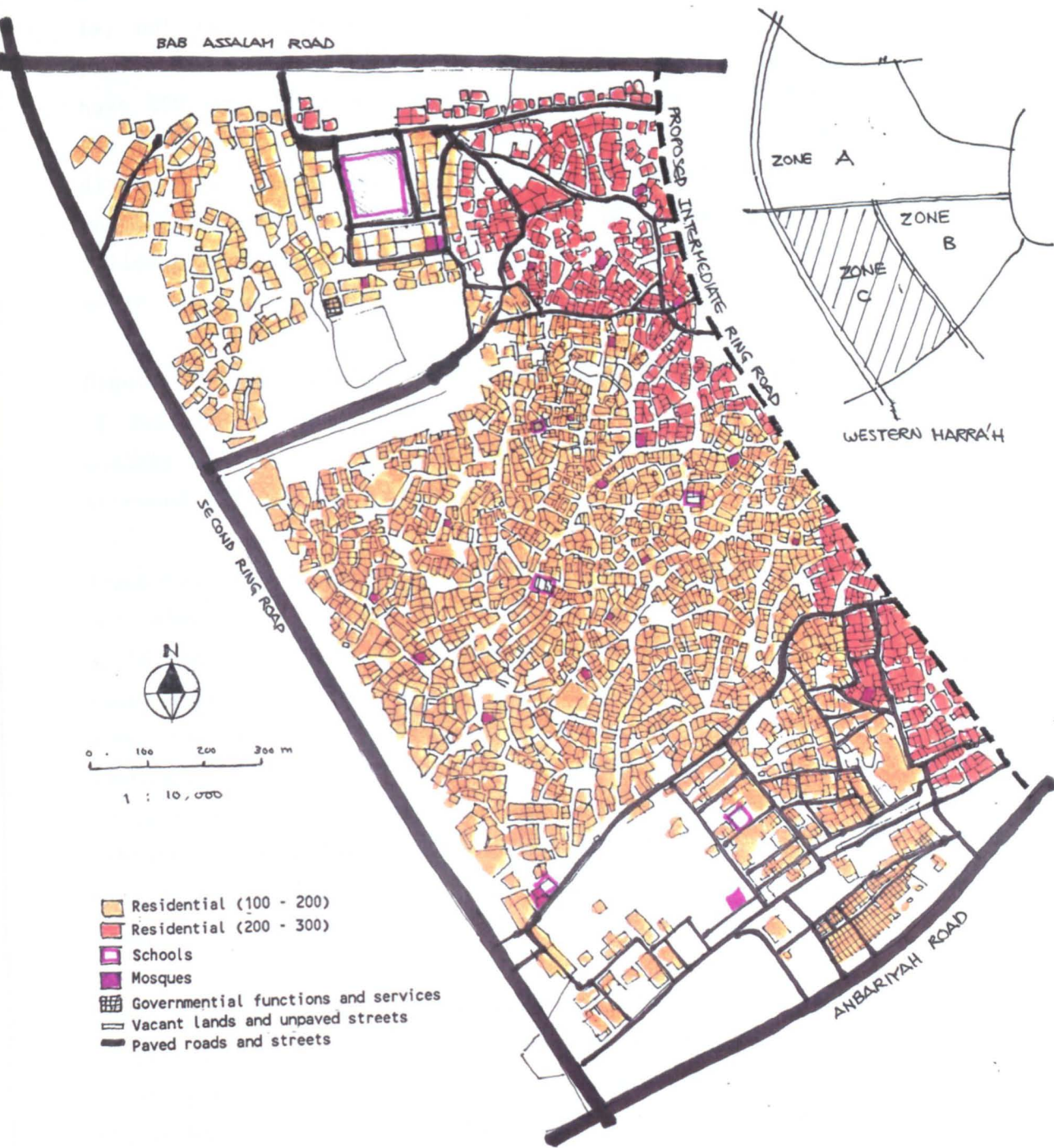


Figure 6.9 : The existing structure of land uses in zone C within the western harrah area. (source: Medina Municipality)

storey building which disperse over the remaining areas in particular, the western parts. This pattern of population density is, not in conforming with the pattern was proposed by the WHAA plan, where the area was divided into two parts, the western should have 120 person/hectare while the eastern have 150 person/hectare. The MDP emphasized upon the need of quick control and action to direct the development in this Area specially in regard to population density distribution. "The Planning standard should be followed strictly with special regard to the density distribution in order to maintain the optimum population levels in the area.

Figure (6.9) and (6.10) shows the unorganised and scattered patterns of residential development which led to low level of living and quality of services, as many of the buildings in the area cannot be accessed and reached by vehicles.

Moreover, this dispersion, dominates not only the residential use but also the commercial. In fact, many high-rise ground-floor buildings were utilized for commercial use, in particular for retail shops supplying food, clothes and other personal needs, for diffuse over the area in different location in the western, middle, southern, northern parts. However, some of these shops concentrate in a high density along the main streets in the area, such as Qiblatain, Saih, Bab Assalam, First Ring Road, Anbariyah and Sikkah Hadeed Road in addition to some parts of the proposed Second Ring Road. also, along the areas around Sila' Mountain.

There is not any sign or evidence to indicate the existence of the hierarchy urban units as recommended by the MDP. Neither the existing commercial use allocation and distribution has followed the hierarchy's outlines, nor other type of uses such as educational, religious, clinical and so forth. In particular, the recreational uses were proposed to include 13 areas according to the mentioned hierarchy. At present there is only one area that could be considered as a recreational area as it was originally a farm. Figure (6.9) shows clearly the lack of this type of use and needs. Furthermore, while the WHAA Plan included 28 elementary schools, 13 intermediate and 6 secondaries, the actual numbers of these type of



Figure 6.10: The view of the squatter development of building in the western harrah area.

schools in 1987 were respectively 17, 4 and one secondary school. Most buildings of these schools are rented and thus they are small and lack the required facilities. Similarly, there are 65 mosques in the area against 117 mosques proposed by the WHAPP. Many of them originally were built as 2 houses. Also, only 6 medical centers, 3 police offices, one telephone office, one social center and one kindergarten exists. However, the locations of these uses are, as can be noticed in figure (6.9) disorganised and scatter without any consideration of the proposed hierarchy. By comparing figure (6.3) and (6.9) only one school has been established that conforms to the WHAA Plan proposals in terms of its location and size. This is located in the north side of the area.

Hence, in regard to the road network, although some parts of it have been developed are under construction overall the development of the network is very behind. This from one side, from other side the local collector streets are very badly neglected and accordingly they were developed in a very unorganised way. Figure (6.9) shows the situation of the local collector streets compared to what was proposed in figure (6.3). 46 percent of the roads total area in zone c is occupied by unpaved sub local collector streets, while the rest of the area includes areas of the higher level collective streets and main roads which are mostly paved. The main proposed improvements and establishments of the network in the whole western Harrah area are partially implemented. In fact, Bab Assalam Road are mostly completed, Qiblatain Road are completely improved while Saih Road is still under construction as well as Second Ring Road. Anbariyah and Sikkah Hadeed Road remained in the same situation as existed in 1978. The proposed Intermediate Ring Road is still under study. Accordingly, the two-level intersections that were proposed by the plan have not been effectuated.

Furthermore, the areas around Sila' Mountain in the north east of the area have been developed in complete breach of the WHAA plan. Thus, this is particularly true of the eastern parts of the Mountain which the plan proposed for development as a recreational area, but have been developed as a high density residential area. In contrast, the western parts have followed the recommendations especially in

terms of preserving the historical zone. However, the cultural area in the south eastern part of the area, although it still exists, is actually used for governmental offices and functions.

In sum, the actual developments in the WHAA, despite the lack of accordance with the general guidelines of the Plan especially in the road network; have not conformed to other general and specific guidelines and recommendations.

6.3 Mechanism of land use structure implementation :

Theoretically, many direct and indirect factors may play a role in shaping the pattern of land use structure. These include land prices, land accessibility, highway location, public work location, public utilities and services availability etc. (Chapin, et al, 1960)

But our concern here is with effectiveness of the MDP as a public policy document in directing and controlling the developments to have a certain planned structure of land use. In other words, why the MDP has not had an influence upon the land use structure as we concluded from the previous actions? Assuming that the urban plan does not have an impact upon the land use structure certainly it will be affected by other factors. Consequently, there are factors, probably other than those mentioned which weaken the effectiveness of the plan as public policy and a governmental tool for planned intervention in shaping the land use structure see figure (6.11). The focus in the present study is to investigate the factors influencing the effectiveness of the MDP in directing and shaping the actual land use structure.

The investigation will be on two levels. The first level concerns with the land use structure in the level of the city as a whole, while the second level focus on a specific area, which is here the western harrah area.

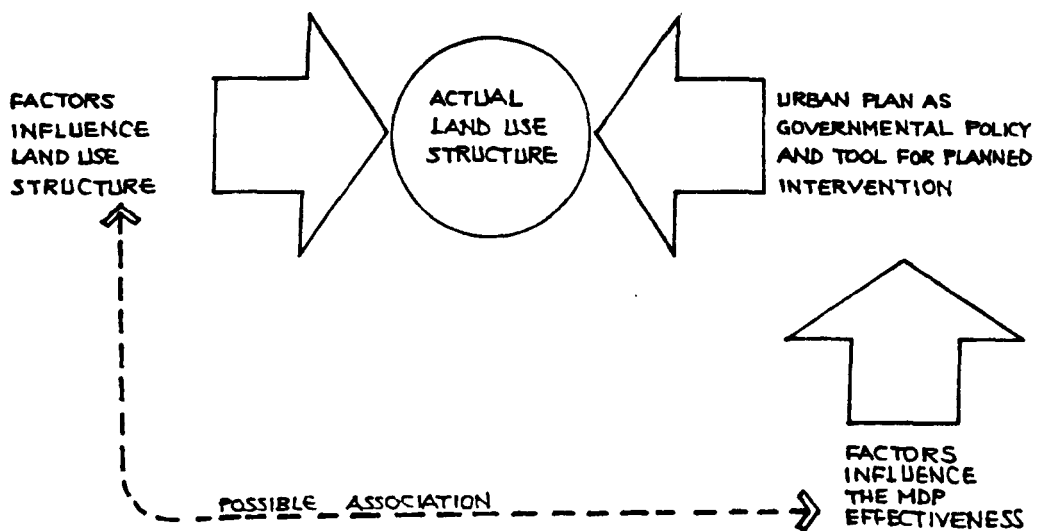


Figure 6.11: General hypothetical relationship between the land use structure, the MDP and possible factors influencing the effectiveness of the Plan

6.3.1 Factors influence the implementation of the MDP

Land Use Structure:

First of all, most of the land uses which have been mentioned above which did conform were actually either in existence conditions in 1979, when plan preparation started, or were a part of the determinants and constraints of the proposed land use structure.

An introductory review of the relevant determinants and constraints is necessary.

Essentially, the religious significance of the city makes it unique, which represents the major determinant of land use structure. Where most developments centered around the Prophet's Mosque not only in 1979 but also by early period of Medina history, especially after the first establishment of the Mosque by the Prophet. Then the dominant role of the Mosque became one of the main characteristics of the city. Given this fact the city may continue having this type of development without any intervention from the government. Moreover, the importance of the city as a religious center, not only because of the Central Mosque but also because of its history and continuous relationship with the Islamic orientation and rituals such as Pilgrimage, attracted and influenced both private and public interest. For example most of the high-rise buildings in the city are hotels and apartment buildings, developed as accommodation for pilgrims and mosque visitors and shopping centers. Also, the development of Medina, no longer a local public concern only, as the central government, monitored directly by the King, was involved in the process. In fact, as mentioned in Section (3.2.1), a special office and higher committee were established to follow up the developments especially the Central Area Project and the enlargement of Al Haram.

In addition, Medina, because of its history has marked cultural and historical areas dispersed in different locations of the city. Most of these areas are, in fact, touristic (pilgrims mostly) attractions. For instance, Sayid Ashohada area; in the north, Qiblatain Mosque and the Seven mosques in the west, Quba Mosque in

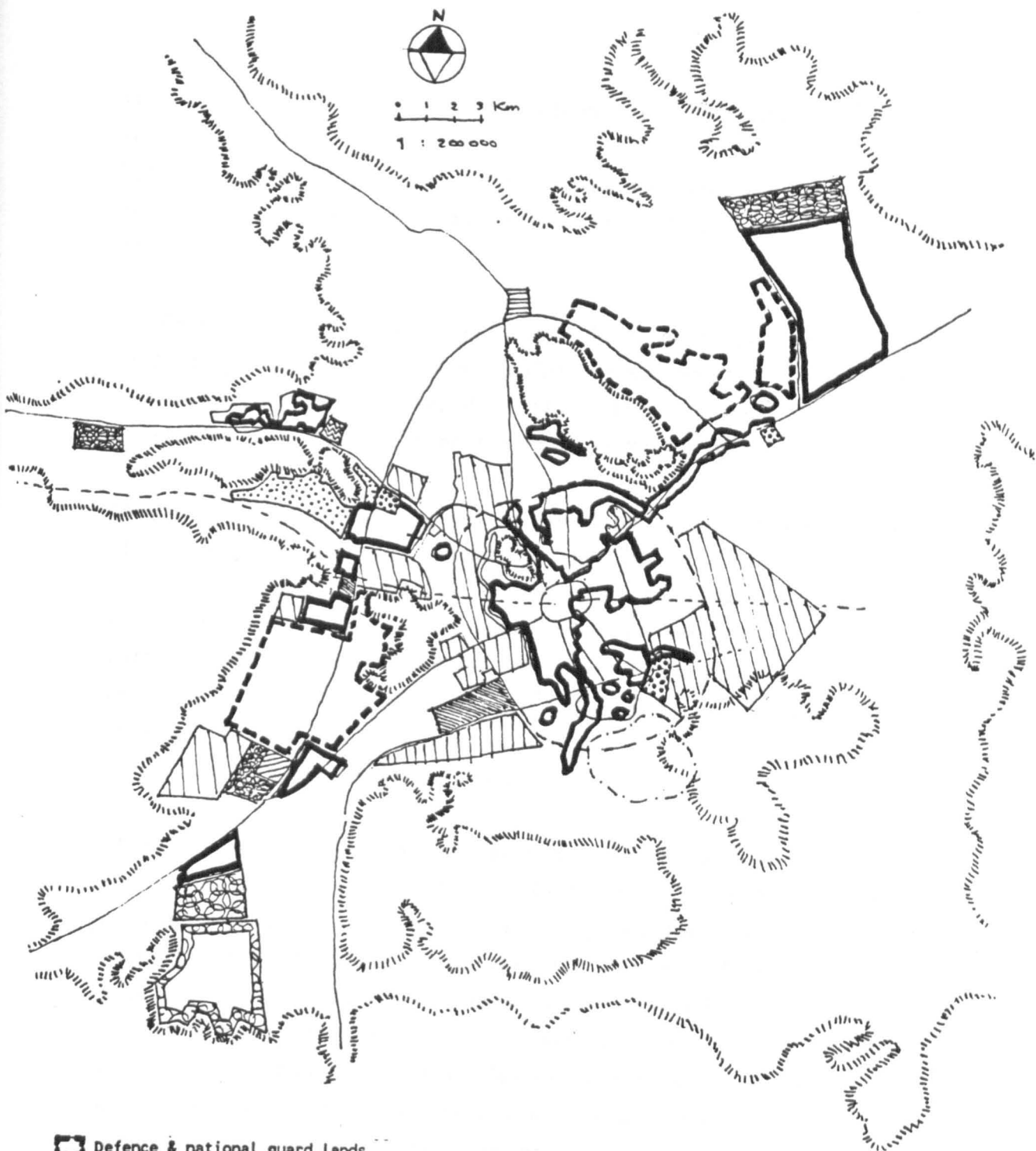
the south and Market Mosque in the south west 15 kilometers from Medina. Moreover, the city possesses a religious boundary which was determined by the Prophet. One of the main implications of this boundary is that Non-Muslims cannot cross the boundary into the city. For this reason the government established a special route for the Non-Muslim. So, the road network, consequently, has been and is being influenced by this fact. And, in turn, several establishments and uses have been developed along the Non-Muslim Road, especially uses that needed to consult Non Muslim experts, such as industries, universities, hospitals and so forth.

The topography of Medina is another and one of the major constraints and determinants of land use structure. In fact, the fluctuation of the proposed urban boundary by the MDP influenced strongly by this nature. Although, of that the area inside the boundary included about 13,530 hectares (16 percent of total area) (See figure 6.12).

Another major determinant that was considered in structuring the proposed land use pattern, was the committed development projects, namely, the projects had been approved by different authorities in Medina

Figure (6.12) shows the location of these projects, also (appendix A-6) specifies the type of these projects. Accordingly, many of the recent existing land use conditions and structures are actually outcomes of these projects effectuation¹. For example the industrial areas in the south west along Anbariah Road, educational area in the west along Tabuk Road, hospitals along Tabuk, Mattar and Green Belt Road (the eastern part of the proposed Intermediate Ring road), and many new residential areas such as Al Hijjah land sub division along Hijjah Road, Al-Khalidiyah district in the south eastern of the proposed Second Ring Road and Azhary and Naseem districts in the north western of the same ring road. Moreover, the governmental lands owned by the Defence Ministry and National Guard in the north east and south west have played a role in structuring and influencing the existing land use pattern. Where, the MDP considered

¹ These projects included in the operational plans for Medina, of the Third National Five Year Plan (1980-1985) as mentioned by the MDP in the technical report No.14.

















-  Defence & national guard lands
-  Exsisted built up and land uses areas in 1979
-  Committed residential (most of the areas committed for residential land subdivisions).
-  Committed transport project
-  Committed industrial projects area
-  Committed utility projects
-  Committed sport - project
-  Committed helth project
-  Committed educational project
-  Committed pilgramage service project
-  Mountains
-  Location of main underground water source
-  Exsisted road network in 1979
-  Exsisted proposed roads in 1979

Figure 6.12: Constraints and determinants of proposed land structure by the MDP.

(source: MMRA, Report No.9)

these areas as not available for planned and controlled development, so the plan emphasized:

"This will prompt the local authorities to undertake development of such areas perhaps much earlier than the scheduled period." (MMRA, REP.NO. 9: PP.221).

In fact, most of these areas have been developed; some of them without contacting the Municipality such as the most scattered developments that occurred within the National Guard lands particularly in the north east along Non-Muslim Road.

Furthermore, some existing and proposed projects and uses influenced the proposed land use structure and indeed, have affected the existing structure recently. For example, the area that lies to the south of the proposed second ring road is actually very rich land with underground water, and as a result the government considered it as a main underground water source and constructed a large reservoir 20 years before the beginning of the MDP period. Accordingly, there is some development in this zone.

Also, the existing Non-Muslim Road beside the approved proposal of the Second Ring Road route by the Road Authority in Medina influence considerably the structure of the proposed land use plan. The MDP clarified that "Traffic is universally recognized as a function of land use and therefore, road network is designed in accordance with the location and intensity of existing and proposed land uses. However, in Medina, most of the major road network has been approved by the Ministry of Communication and local Authority. Due to this unique situation, it became imperative to relocate the land uses which would be compatible with the major road network." (MMRA, REP. NO. 9: PP.188).

These are the major constraints and determinants which influenced the plan making process, i.e. the MDP outlines of land use structure, as well as the actual structure that now exists. They, indeed, manifest one dimension of the context that the MDP is supposed to operate within. However, the other dimension is the

institutional context which was explained and described in section 3.4.2.7.

At this point, and within the context above, whether in terms of analysis of the land market or the major constraints and determinants considered in designing the proposed land use structure; it is logically proper to examine the factors that weaken the implementation of the MDP's land use structure.

According to the concluded results through the examination of conformity degree, we can say that the proposed land use structure has, in great extent, not effectuated as envisaged by the plan, although some developments were performed in harmony with what the MDP outlined.

This raises the possibility of the Plan's validity especially in its forecast and projections, but the recent population survey estimated 405,000 population for Medina which is very close to that was projected by the MDP in the low estimate, as can be shown in figure (6.13).

As long as the plan is still valid with regard to the forecasts and projection, the other possibility is the adaptation of it by the concerned authorities. According to the consultant who was assigned to produce the plan, all the technical reports of the project were approved by the MMRA. But it was not the approval which gives the MDP and its short term programme legal support and credit. Because, as shown in figure 3.14 in section 3.3) the approval here means the technical acceptance by the experts, including the UN experts, in the Deputy Ministry for Town Planning. (DHTP) This fact was confirmed by the director of research and studies department in the DMTP. It is believed by the present researcher that most of the negative attitudes of the recent officials in Medina Municipality, against the MDP were affected by this fact, i.e. the lack of legal support. In addition to the influence of their belief that the MDP has become out-of-date, as mentioned and discussed in the previous case. This occurred through the humble utilization of the tools included within the plan's recommendation for a successful

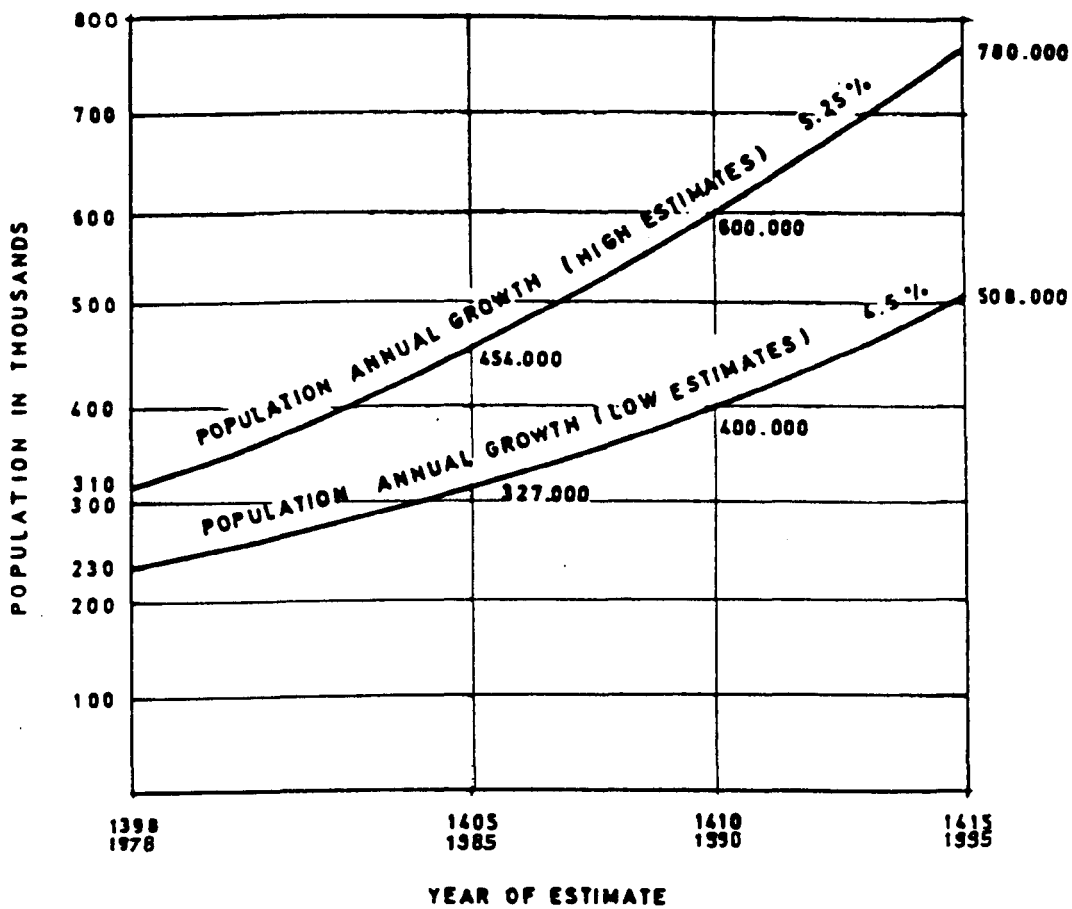


Figure 6.13: Population forecast by the MDP.
 (source: MMRA, Report No.9)

implementation. The plan highlighted the importance of these tools "The adoption of Master Plan requires a set of regulations designed to interpret the intentions of the plan and enforcement of rules to control and guide the development according to plan recommendations and concept." (MMRA, REP.NO. 9: PP.229). However, let us go through the actual condition of these tools.

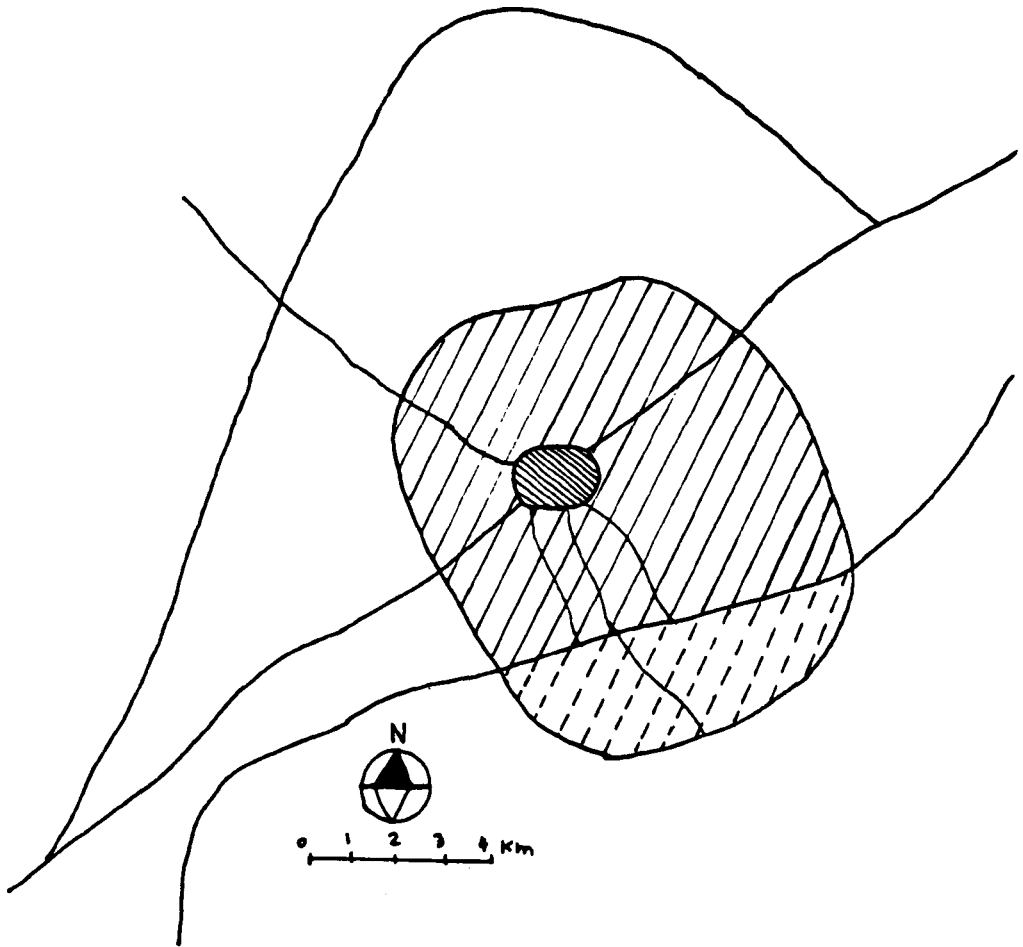
Zoning Regulations:

Although the MDP described the zoning regulations as a basic device for the implementation of the Plan and control of development and accordingly draw a specific map and textual framework for this purpose(see appendix A-5), the process of day-to-day activities in the Municipality have continued to be based upon the 1972 Road and Building Act and the subsequent Ministerial and local statutes. These statutes have been used without coordination, for each case and problem as it emerged.

The only zoning ordinance that has been applied is a map which indicates and regulates the building heights (figure 6.14). It is, based upon the statutes which were sanctioned by High Committee for Medina Planning(HCMP) No. 5 - 1396 H (1976) and by the sub-committee, which had an authority to add and change the local statutes, in 1401 H (1981). In fact, both statutes comprise the legal base of controlling the heights, and some building architectural characteristics . Moreover, the sub-committee of the HCMP may allow 12 storeys height in any site of Medina, conditioned by minimum ground floor area of 1500 s.m. and by the permitted population density.

Also, there are many regulations which were issued by the different levels and have the authority to do so, regarding the building codes and set-backs, in addition to the old ones included in the Road and Building Act (1972).

This continuous unintegrated production of regulations and statutes either from the top or from local authorities is still a recent phenomenon as a result of two factors: (a) The dependence nature of







- 
**Building abutting first ring road
7 floors + an additional floor including
building within the first ring road**
- 
**Buildings between the 1st & 2nd ring
roads : 4 floors + an additional floor**
- 
Area added later on to the 4 floors one
- 
**Buildings outside 2nd ring road
2 floors**

Figure 6.14: Building hights until 1989.
(source: MMRA, Report No.7)

the statutes included within the 1972 Act. In particular, the land use regulations in section II of the Act entitled "land use according to divisions". Although the specific regulations differentiate between the various type of land uses and regulate their relationship to each other, it needs a comprehensive framework which link them to each other such as the zoning ordinance map was drawn by the MDP as an example; (b) The dispersion and fragmented nature of the subsequent statutes and regulations have been sanctioned after the 1972's Act. In other words, they are not available in one place, but in different departments in unorganised situation.

Having this situation, most of day-to-day activities were dependent on the individual experience and interpretation of the laws. So, most of the large exceptional projects either commercial, industrial, or health ...etc. which finally are given permission by a special committee (see figure 3.4 in sec. 3.2.2) were/are being approved on the basis of this experience and the interpretation of the law, in addition to sometimes the utilization of the general land use plan was proposed by the MDP, as a general guidance but not as law.

Although the MDP differentiated between the land use plan and land use regulations (zoning ordinance) by stating that 'land use plan' "provides a general picture of the land utilization without being specific for control purposes. The land use plan may be interpreted in many ways, but the zoning map contains specifics and cannot be interpreted differently than prescribed." (MMRA, REP. NO. 9: PP.231).

So, when there is no specific legal map for land uses and development, the available regulations are fragmented and difficult to be collected and utilized for day-to-day decisions within a very rapid growth, and there are different alternatives for applicants to appeal(see figure 2.7 in sec.2.5) in terms of getting permission to develop their land as they wish; the land use structure certainly will deviate from what the MDP envisaged. Moreover, this fact explains the non-conforming distribution of population density, and

the discordant occurrence of the industrial uses in the north side of Medina Airport, and the south among the agricultural farms. Also, the disparate locations of the recreational areas, commercial centers and markets such as sheep and traditional markets along the Non-Muslim Road in the North, Tabuk Road and the Green Belt Road in the east. The special committee in the municipality for major projects, in fact base their decisions upon the context near and around the land locations, and the suitability of the project for Medina as a holy city. The context means the existing type of uses around the site and the pattern of the ground roads and streets. Which accordingly means that the committee deals with individuals projects independently not integratively within a comprehensive framework. Consequently, it can be said that the land use shaping process was/is left to the contextual factors manifested in figure (6.8), in addition to rely upon the potentialities of the committee members especially in regard to perception of the urban development mechanism in Medina.

Official map:

This tool is another legal device which was included within the implementation measures recommended by the MDP (see appendix A-5). It specifies the locations, size and numbers of streets and public services and utilities in 1:1000 scale map, according to the general guidelines of the MDP.

However, there is no such legal tool in the actual practice of Medina Municipality. But according to figure (3.4) the official maps exist recently are maps in which the information about every individual building and projects were located during the process of granting permissions. Nevertheless, many buildings and projects permission grants were not proceeded. The main thing the surveyor aims to achieve is to apply the finding of his field survey of the land site with the outlines of the land included within the deed issued by the court, then the second aim is to determine the applicable building codes and set-backs according to the sizes of streets bound the land. Otherwise the local planning department draw and locate the appropriate streets and roads for the site. Then the

same department is supposed to store the information for future use. But actually many buildings do not have reference within this type of map. They only have a file including the textual documents of the permission granting process. Two factors have affected this process, i.e. producing the official maps. First, is the rapid growth of Medina population and accordingly the huge numbers of building permits applications, particularly, while the MDP was in the period of making process (between 1979-1983). One of the official in the local planning department said "It was very difficult and not practical to wait until the official maps have been prepared and authorized, there was actually no time even sometimes to complete the usual process of granting building permits in a proper way." In addition, it was so difficult, too, to follow up the process of constructing the permitted projects, so, several areas in Medina were developed quickly and in a scattered fashion such as the Western Harrah. The second factor is the efficiency and capability of the Municipality, as the major local urban planning machinery to manage the urban planning process especially within this rapid and dynamic nature of society, and particularly in the first period of the MDP, where the Municipality did have a special department for urban planning but it was only concerned with the granting of building permits, approval of sub division plans and enforcement of other dispersing regulations concerning urban planning and developments. The Municipality at that time, and still recently, commissions a private firms and consultants on various specific planning assignments, because lack of experience and skill (MMRA, REP.NO. 17/20). Thus, one of the main objectives was to be achieved by the MAMP Project is to establish a special administration for Medina Urban Planning and Development (MUPD) (See 3.3). But the consultant mentioned in the annual evaluation reports were submitted to the MMRA (in 1980) that in addition to many difficulties he had faced, the structure of the MUPD had not been approved by the concerned authority. Consequently, the administration of the MAMP Project which is supposed to be considered as the first initiative of the MUPD, lost its validity and authority. "Unlike the previous years neither the consultant nor the Saudi Counter Staff were so often involved in the ad hoc matters regarding issuing of building permits, approval of sub division

schemes and preparation of feasibility studies for observation or comments. It will, of course ultimately undermine the efficiency of the new Master Directive Plan, Execution Plan and Action Area Plan. There was a need for an official recognition of the Medina Planning and Development Department as an agency of the government to be more effective in promoting projects, according to the Master Directive Plan, by public as well as private sector." (MMRA REP.NO. 16: PP.25-26).

Which in turn, means that the day-to-day activities since that time have operated without MDP guidance and according to the available statutes concerning the individual matters of urban planning and development, namely, the process manifested in figure in section 3.3. Unfortunately, neither the survey department nor the local planning department has stored and organised this information in a map form, in addition to fragmented nature of this information amongst the various departments and mostly the unavailability of it. As a result, the Municipality used to do a complete field survey for the areas need a renewal of services, such as the Central Area field survey project in 1988 and the field survey studies were made for the Scatter Areas Replanning Project in 1986.

In sum, it can be said that the Municipality in Medina is managing urban planning and development according to the individual unintegrated Acts and Statutes emerging as a result of day-to-day needs and problems, trying to monitor the rapid process of development and catch it, in order to get rid of its undesirable impacts. This is very much a sweeping up operation.

Land Sub division Regulations:

Likewise, the Municipality has not considered the MDP's framework regarding land sub divisions regulations(see appendix A-5). Particularly, in terms of linking the implementation of this regulation with the MDP's land use structure and recommendation including the zoning and ordinance and the Executive Plan: "in preparing the sub division Plan, and the Execution Plans, such as the land use, Traffic and Public utilities should be observed..."

"The sub division should satisfy the minimum requirement of the zoning bye-laws and regulations." (MMRA, REP.NO.7:PP.147-8).

However, the Municipality legally has to base its decisions regarding the land sub divisions approval upon the statutes issued by the central authorities which historically start with 1960's land sub division regulations, the 1972 Act (Section Eight) and the 1976 Statute No.5/340. The last two statutes, in fact, highlighted the importance of considering the Master Plan's guidelines. For example the 1972 Act required that "the sub division plan should be compatible with the Master Plan of the city and inconformity with the rules established in the law of roads and Buildings",

Also in the 1976 Act one of the requirements which must be incorporated in the land sub division plan include 'conformity with land use and zoning'. But it was argued above that the MDP's framework and recommendations were not adopted. Consequently, many land sub divisions were approved as an individual and independent projects, taking into account the requirements of internal design criteria, and the integration of them with local existing environments of the sites. This may lead to unbalanced and disintegrated distribution of public services and utilities. In addition unsuitable locations according to the phasing programme of development as discussed in the previous case, and in regard to land use allocation structure proposed and clarified above. Moreover, many of the approved and implemented land sub divisions, as declared by one of the officials in the General Planning Department, do not have public services and utilities, either because they are under developed and very far with regard to the local governmental authorities priorities and phases; or because they were and have not included in their annual and five year budgeting programmes.

In regard to this fact, the girls education general president mentioned in a directive letter to the local director of girls education of Medina "Since we have received several requisitions from the land sub divisions owners offering specific and earmarked lands for girls schools to be bought by our agencies or render them as un-needed locations. And as long as these locations were

sanctioned to fulfil the long range needs of the educational services, then it is not possible for the presidency to buy all what is offered to her for many reasons; the most important are the availability of financial approval and our programme of priorities which is concerned with the inhabited areas. However, this does not mean that the presidency will surrender its right to consider these locations for its service." (Directive Letter No. 546/17/1T in 30.11.1409 (1989).

In addition to the weak and inefficient co-ordination and communication process between Municipality and other local authorities, the director of Mosques department and Engineering department with the local Endowment and Mosques Authority (EMA), accounted the unserved land sub divisions with mosques for the weak co-ordination from the Municipality as the EMA has not provided with many of these land sub divisions plans.

Accordingly, many of these land sub divisions owners have not waited until the concerned authorities decided to utilize the earmarked locations for their services within these land sub divisions, but they tried to change these locations into plots and offering them in a low price either with or without contact with the Municipality. This practice was noticed as a wide phenomenon occurred in Saudi Arabian cities. A statute was distributed to all the Kingdom's municipalities by the MMRA including a warning directive to commit with what approved in the land sub divisions plans and not to make any changes. The directive added "and since we have noticed that some municipalities do not commit with what sanctioned in respect to this matter by approving the changes of lands ear marked for public services in the approved land sub divisions. (Directive Letter No. 232/5 in 15/11/1400 H (1980).

Sometimes, these changes are made because the concerned authorities render them as unnecessary locations for them. For example, the land sub divisions of Al-Ahmadi near to low income housing in the south east of Second Ring Road in the north of Khalidiayah district. The civic defence authority left the land ear marked for them because they do not need it according to their official letter No.

7/21/2155/DF in 19/6/1408 (1988). The land was changed into three plots and offered for sale.

Moreover, in some cases these locations within approved land sub divisions were changed because of the land infringement process as mentioned in the previous chapter. They put their hand on these, lands revive them by constructing very primary buildings which in some cases involve only walls linked by a wooden roof and in other cases include only fences of bricks, then claim and appeal at the Court for their ownership, basing on the "Thia" concept in Sharia', and mostly get the deed. Different areas have witnessed this phenomenon such as Sayid Ashohada area, western and eastern Harrah and other areas.

In sum, the land sub divisions, although they were applied and considerably influenced the direction of the growth and development in Medina,, were nevertheless implemented as an independent tool; which concerns only with the internal quality of the land subdivision and its harmony with the surrounding local environment. In other words, the use by Municipality of this regulation was not as a part of comprehensive framework which governs not only the Municipality's activities and decisions but also all the local Ministerial subordinates too. Consequently, the Municipality dealt with land sub division and other regulations as same as how the other authorities deal with their own regulations and policies such as the Agricultural Authority (AA) of Medina which is in charge of agricultural development. The AA, in fact, does have a land distribution and subsidy programme called "Arable land subsidy programme" (See sect. 3.2) which should be implemented outside the urban boundaries within the rural areas. But when there is no clear and specified urban boundary, the Municipality cannot control the pattern of land development and use. Thus most of the agricultural areas occurred in the eastern part of Medina as a consequence of the unintegrated framework of policies. The previous Mayor of Medina mentioned this problem in his paper that he presented in the Second Conference of the Municipalities and rural clusters in 1986: "And you can notice that many of these agricultural lands were developed surrounding cities or close to them which led to land use conflict,

and a conflict with the development expansion areas in some cases. And although the existence of these agricultural areas benefit cities with pleasant views and affect the weather positively, this kind of development may force the desired and natural expansion of residential uses to take another opposite or undesired direction such as towards the Mountain and lava areas." (MMRA, 1986: PP. 342). He accounted this problem for the absence of the urban and city boundary as one of the factors that influence and cause the problem.

Public Projects:

The regulative tools are not the only tool that may be used to control and direct the development, but the public projects also can be a very effective ones. The MDP emphasized upon this issue(MMRA,REP.NO.9): "The government can control the momentum of development not only by regulations but also by its policies and projects." pp.234

However, this tool is ineffective without capital programming and budgeting. "Capital programming and budgeting is the most important component of planning process. It defines the immediate action areas and long range programmes and budgets." (MMRA, REP.NO.9:pp232-3)

Nevertheless the MDP has not been adopted and as a result most of the local authorities including the Municipality are directed only by the Operational Local Plans stemming from the National five Year Plan. Hence, the assessment of needed projects and programmes in Medina, to be considered in the Third National five Year Plan, well performed by the (GACDAR), within the required steps of the MAMP project, and with the consultation of the local authorities. (MMRA, REP NO.14.)

In fact, the only coordination process between the activities of the local authorities concerned has been operated through the High Committee for coordination in Medina (see section 3.2). Mostly the committee coordinates between local authorities whenever a specific project that needs collective cooperational work from more than one authority such as the Central Area Project, Qubas, Qiblatain and

Miqat area development and improvement projects. In addition the committee makes agreements on the local policies and regulations which will govern all developmental activities in Medina. Also, it solves conflicts and problems that may occur between authorities during work. But the nature of the committee does not enable it to draw up an integrative capital programme as most of the authorities participate are local executive machineries. They, in fact, receive their budget framework from the top regional or central Ministerial offices.

Moreover, although Medina does have a high ranking committee which includes participants of ministerial level (see section 3.2), the budget making process is influenced by how the National Plan's objectives should be executed locally, and by the contingent programmes and projects emerge from the Royal Office for the two Holy Mosques. Enlargement and development (ROTHM).

Some of the authorities concerned in Medina possess a Master Plan for their work, which include a phased implementation programme. One example is the Water and Sewerage Authority which has a Master Plan prepared in 1979 to cover the assessment of network needs up to 1996. Figure (6.15) shows the implemented parts and outstanding parts of the plan. Accordingly these type of authorities prepare an assessment of their financial needs for the top office so that the five year budgeting programme can be drawn up.

The other type of authority such as the Municipality which bases its financial needs upon the number of specific projects, approved and being implemented, as they need more than a year to be completed. In addition to specific projects there is the contingent need for new projects, mostly coming from the ROTHM and completely or partially assigned to the Municipality. These projects have not been based on the MDP's recommendations, particularly, in developing the Central Area, which can be observed through the loss of cultural areas, as a result of the enormous amount of demolition. In fact, the Municipality's top departments assess their needs as mentioned above (these departments, mostly, work independently without communication and coordination with each other as the director of managerial

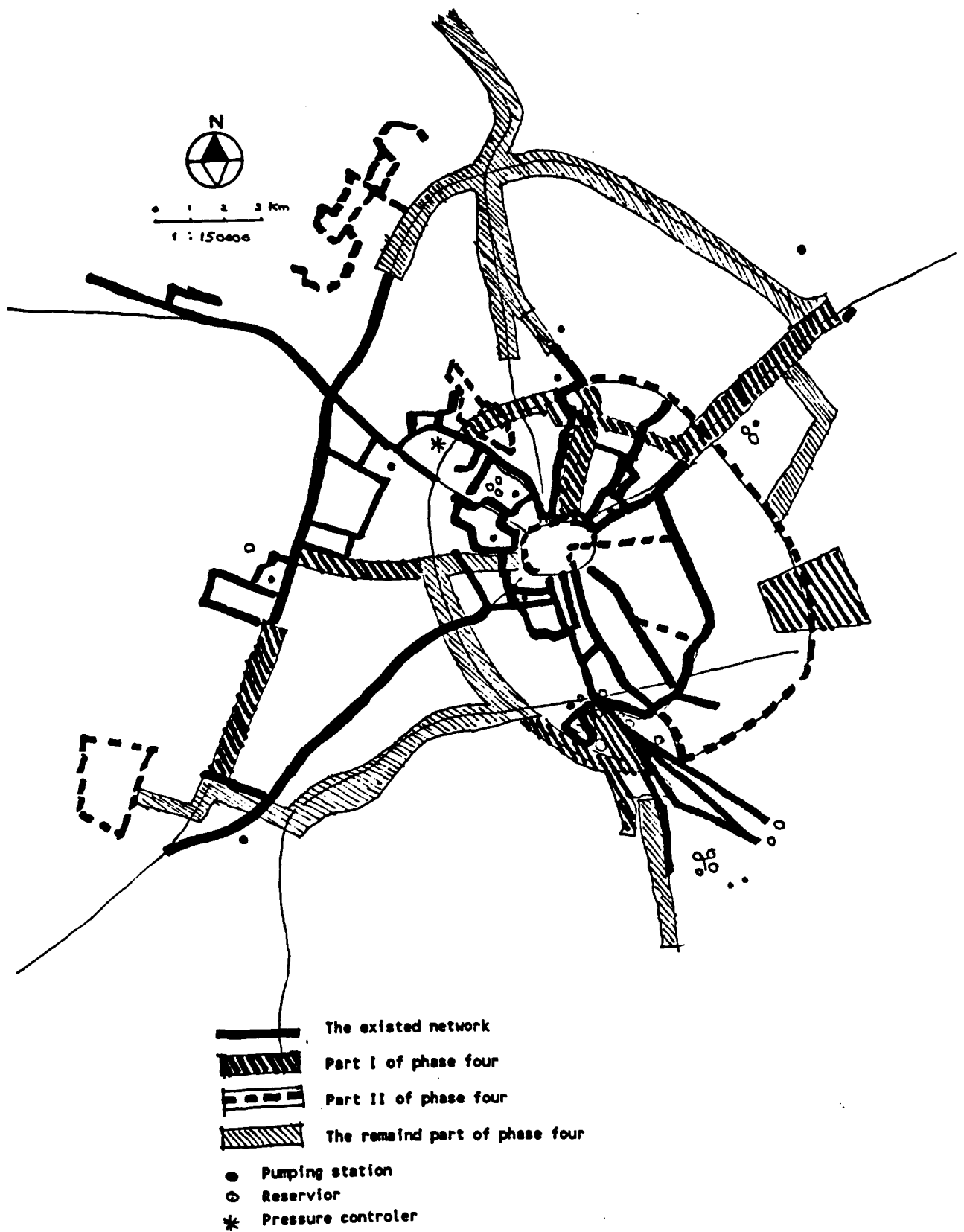


Figure 6.15: The Master Plan for the water network construction.
 (source: The Water and Sewerage Authority)

programming and planning department declared). Then the Mayor in a special committee with the participation of the budget department director draws the annual and five years budgeting programmes, without consideration of the priorities highlighted in the MDP. But because the Third Five Year local projects assessment was outlined by the GACDAR, several of its approved projects, have been and are being implemented, and, in fact, integrated with MDP's framework and recommendations. For example, Bab Assalam, King Abdullal Azeez roads and Manakha Tunnel, also Safeiyah and Anbariyah Bridge....etc. Otherwise the projects have been and are being determined independently. In fact, about 80 projects were approved, implemented and under construction between 1980-1990. Nine of these were study projects, 10, property expropriations, 18, service and utilities establishments, and 40, different small scale projects such as paving streets, lighting, construction of fences and walls, public toilets and so on. Moreover, the two organizations were established in Medina, have had a considerable effect on the urban development process though these effects were not in conformity with the MDP outlines. One is a public ,which is the ROTHM: It financed considerable number of public projects in particular in the Central Area Development Project including the enlargement of Prophet's Mosque. It was responsible for several other individual projects such as the improvements of Quba, Qurban and Awali streets. The other organisation is a private-public organisation called "Taiba Corporation for Medina Development." It aims to gain private participation in supported developmental activities in Medina, which is a translation of one of the fourth National Plan's major objectives.

Accordingly, it can be said that the lack of conformity of physical development with the policies of of the MDP, particularly as a consequence of public projects was due to the different objectives that motivate the various governmental actors responsible for those projects. The problem is also a result of the incapacity of the local planning machineries to operate the planning process and utilize the public projects to facilitate the MDP implementation as GACDAR observed (MMRA, RFP.No.17/20) "from time to time' the Municipality commissions firms of private consultants on specific

planning assignments as its own technical machinery is not adequately equipped to cope with the nature and magnitude of the work load."pp.67 The consultant GACDAR prepared a framework for training programme for the Saudi planners and engineers not only for the Municipality's but also for all the concerned local authorities' officials. But the programme failed to be fulfilled because of the weak enrolment. "This training programme could not be implemented because with exception of Assistant Director's position which was occupied during most of the contract period, only two other assignments could be made for a short period." (MMRA, REP.NO. 7/20: PP.175). The MAMP Project included the establishment of a capable administrative structure to manage the planning process, i.e. the evaluation and monitoring of the day-to-day activities, the co-ordination of public projects according to the MDP and updating the plan if needed but actually this administration structure has not been approved and implemented. The Marketing and Sales Planning and Development incorporated within the Municipality to be the Municipality Deputy for technical affairs. The Municipality continued in commissioning the private firms on the various projects needed to be studied and implemented. It is, indeed, the lack of staff capability and skill to manage the planning process, which influence the pattern of development especially in the first phase of the phasing programme of the MDP, when the impacts of the economic boom and accordingly the rapid urban growth was still pressing. One of the officials in the Municipality said: "although many projects were commissioned from experienced private firms, we never had a training programme."

The current Mayor confirmed the need for qualified and trained staff and accounted the failure to cope with the MDP's outlines to this factor saying: "This type of comprehensive framework needs a qualified and skilled staff which we still do not have."

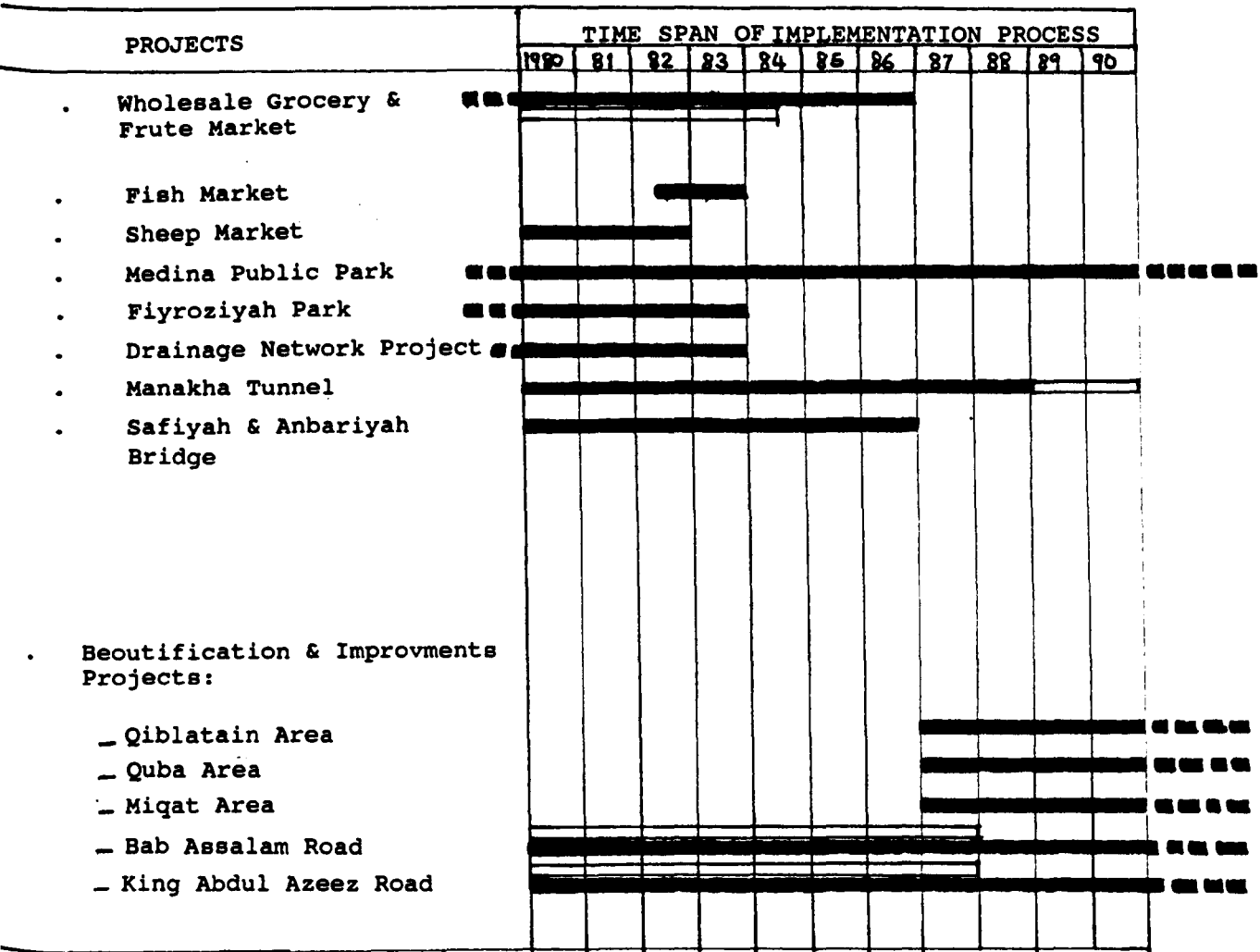
Given this fact, many of the non conforming developments that have occurred could be explained and accounted for the weak capability of the Planning machinery in the Municipality to cope with the situation. "As the pace of development is very rapid, the Municipality is constantly under pressure from the private and

public sector alike to make quick decisions which sometimes are detrimental to the long term planning interests. This signifies the fact that the planning process is not keeping pace with the phenomenal uncontrolled development activities." (MMRA, REP.NO.17/20: PP.145).

The Western Harrah, in fact, is a very marked example of private pressure which could not be managed and controlled by the Municipality. Another example is the Central Area which was developed either by private or by public sector rapidly and in accordance to the Plan.

The above mentioned factor is one face of the coin, which is a phenomenon at the macro-level ; the other face concerns the other level, which is the micro-level of analysis. It is the internal difficulties and problems of each individual project which may support the argument was discovered in the macro level, in addition to the other probable dimensions may added to the explanation provided in the macro level. Figure (6.16) shows time span has been engrossed in the planning process of each project, i.e. study and design process (formulation), evaluation, then implementation. Some of these projects were, actually transferred from the year before 1980 as a continuous process of planning. The wholesale grocery and fruit market, Marketing and Sales Public Park, Fayrozigah Park and Drainage Network Project are all examples of this. Most of them were still in the formulation process when they were included in the 1980 to the annual budget. Moreover, some of them, such as Wholesale Grocery and Fruit Market, took a long time simply in the formulation process, as well as Bab Assalan Road and King Abdullal Azeez Road. Others had another process of study and design after they were almost completed. An example of this, is the Manakha Tunnel which has recently been put into use but a new extension has been suggested for it, which the Municipality is now studying.

Also, as can be seen in the figure, some of the projects continued and have been transferred to the period beyond 1990, such as Marketing and Sales, Public Park, Qiblatain Area, Quba Area, Bab Assalam and King Abdullal Azeez Roads. This means most of the





 Study period
 Implementation stages

Figure 6.16: Time span of the specific projects' implementation process.

projects took a long time to be completed, either because of their nature or because the planning process was hampered by difficulties and problems. In some cases it was because of both.

In Medina Municipality and other local authorities the planning process is mostly impeded by internal obstacles, in addition to external ones, such as the association with and dependency upon the completion of other projects.

In fact, one of the internal difficulties is the lack of finance either in approving the estimated total needs for each project or in the process of annual flow. To this must be added the lack of skill and experience in adjusting the original proposals for individual projects with the period of implementation from one side and with expenditure structure from the other side. (MOP, 1985) Figure (6.17) shows the structure of the annual expenditure in Medina Municipality and its association with the general governmental expenditure and financial conditions. As can be seen the country has suffered from a financial deficit which reached a peak in 1987-8 as a result of the sharp decline of the oil revenue which starting from the end of 1982 reached its lowest level in 1987, and which could be overcome by the other revenue sources. Consequently, the general structure of the government expenditure in particular, the expenditure on projects has affected dramatically, where only 50% of the budget was earmarked for housing and municipalities in the fourth plan, could be actually expanded, especially the expenditure on the municipalities projects (MOP, 1991). Figure (6.17A) clarifies how the Municipality annual budget in Medina influenced by the general financial situation of the country and accordingly a marked decrease occurred especially in 1985, 1986, 1989.

The other internal obstacle is the lack of experience and skill, especially of the communication controller² between the Municipality and the private firms and consultants. Most of these controllers hold an administrative position in the Municipality. Some of them did not have any previous experience or training programme in

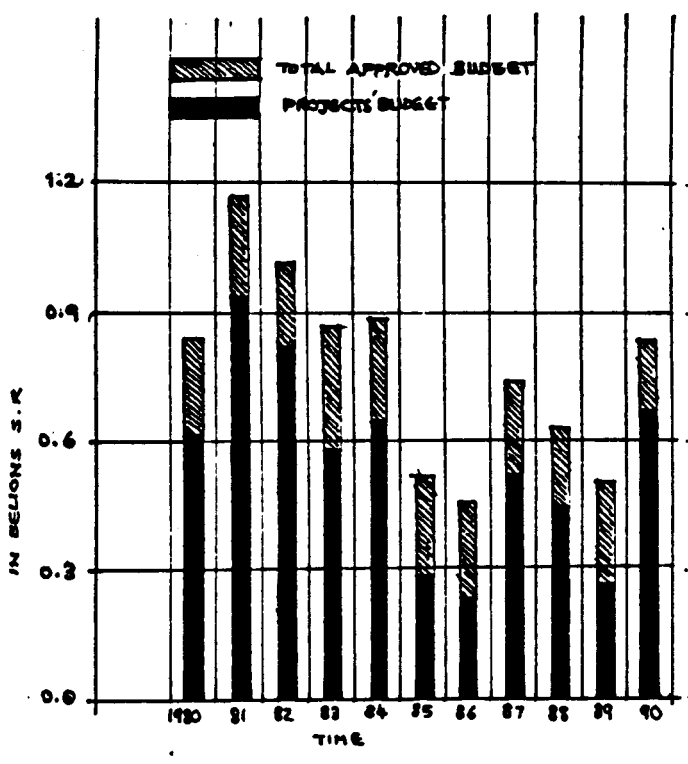
² An official director, from the Municipality, assigned to represent her in directing the project and linking the project's administrative structure with the Municipality.

directing public projects in addition to their very huge and pressed daily activities inside the Municipality.

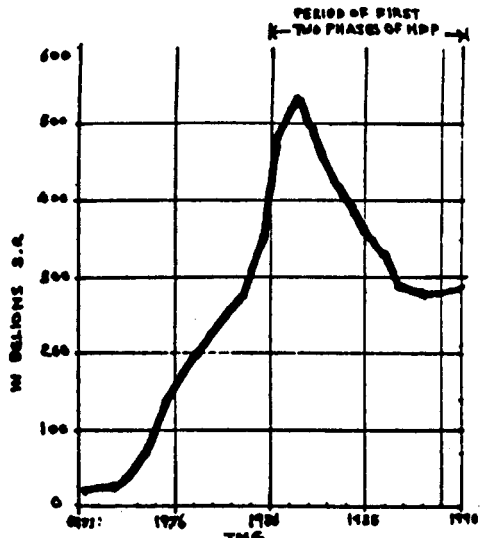
Similarly, private firms and consultants, particularly, contractors, in some cases appeared unskilled and do not have enough experience either in operating the project or in estimating the potential costs and difficulties. The lack of information about these firms in the Municipality in addition to the lack of experience of the officials led and probably will continue to lead the Municipality to be involved with these type of contractors.

Another major obstacle is the process of property expropriation. Some projects include in their implementation programme a stage of property expropriation because the land was originally owned by a private sector. So some difficulties appeared in cases of this type concentrated on the administrative routines. In addition, however the possibility of the owners refusing the estimated compensation and accordingly entering into a long process of negotiation, and the possibility of appeal to the Grievance Board by the owners was the cause of much delay. Most public projects face this problem. Projects in which the land was already in public ownership faced another problem, namely that of, public land infringement. Some people, when they notice any initiative of surveying, measuring and preparing public land, especially when the land is located in the uninhabited area, quickly at night put up primitive constructions for agriculture. Then they appeal to the court and claim for a land ownership deed on the bases of the land revival process (Ihia) sanctioned in Sharia' Law. Examples land infringement of this type occurred in Public Land, Wholesale Grocery and Fruit Market, Low Income Housing and several other projects.

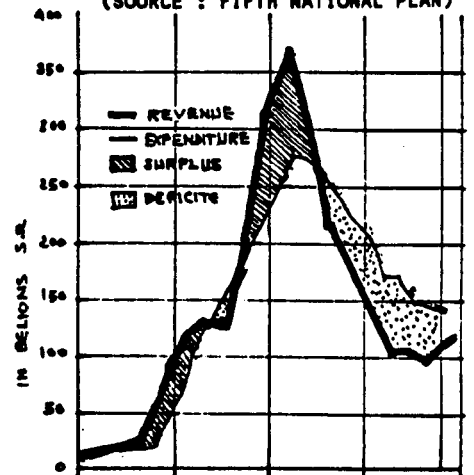
Furthermore, many projects have suffered from technical conflict, in particular, during the phase of earthworks. Some projects are held up by the existence of water lines, telephone and electricity cables, because no adequate maps of the utilities are available. Sometimes by negligence, these pipes and cables were damaged and accordingly needed a very complicated communication, co-ordination and negotiation between authorities concerned to overcome the damage



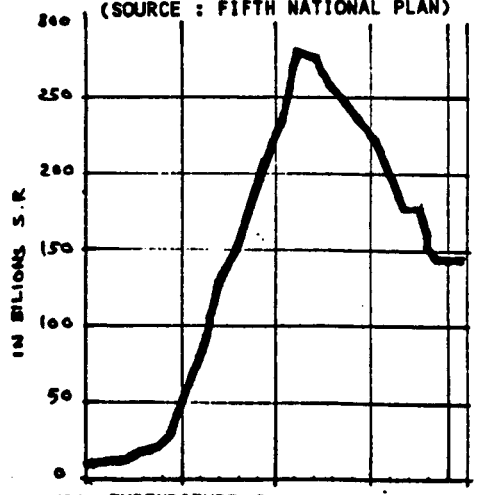
(A) THE ANNUAL APPROVED BUDGET IN MEDINA MUNICIPALITY DURING THE FIRST TWO PHASES OF THE NDP (SOURCE : MEDINA MUNICIPALITY)



(B) OIL REVENUE (SOURCE : FIFTH NATIONAL PLAN)



(C) GOVERNMENT EXPENDITURE & REVENUE (SOURCE : FIFTH NATIONAL PLAN)



(D) EXPENDITURE ON GOVERNMENT PROJECTS (SOURCE : FIFTH NATIONAL PLAN)

Figure 6.17: Structure of annual expenditure in central and local level.

and adjust it. This occurred in most of the road construction, projects, especially Manakha Tunnel.

Some projects include in addition to all the above obstacles another type of problem. It is the intersection between projects with each other. The low income housing is an example. The project, has almost been completed taking into account its design and actual state a future extension of Al-Hijjrah Road crossing the southern part.

But in the recent implementation process of the Road the route has been changed to some extent especially in the part that intersects with the Housing Project. Accordingly a number of the project's buildings need to be demolished, which means more delay in completing the housing project. Another example is the Second Ring Road which intersects with many roads and streets. So, the completion of each road depends on the completion of the others. Moreover, the implementation process of them becomes very complicated when the agencies responsible for each road is different.

As far as the, implementation process of the MDP is concerned, the delay of these projects influence the process of directing the development in the way envisaged by the MDP. Since "the public projects" could play a very significant role in the process. The government can control the momentum of development not only by regulations, but also by its policies and projects." (MMRA, REP.NO.9: PP.234).

These problems can be observed and examined in more detail at the micro level through the analysis of some specific individual projects. Now we will return to the Western Harrab Action Area, to see why urban development was implemented in the way it was performed, in order to develop the explanation obtained at the macro level.

6.3.2 Factors influenced the implementation of land use structure in the Western Harrah:

Within the above context, i.e. the dominant influence of the land market from one side and the management capability of the planning machinery from the other side, the Western Harrah area will be examined as a specific case to give more insight about the implementation performance of the governmental intervention in the control of the development and the land use pattern.

The WHAA Plan is, as mentioned in (sec.3.4.2.4), a short term detailed plan intended to institutionalize the various fragmented governmental efforts in the urban development process in this area. Hence, the actual situation of the area recently, as was concluded within the previous section, is considerably different from what was envisaged by the plan, particularly in the pattern of land use.

In order to explain the reasons for this difference, a historical review of the area will be presented. For the purposes of the present study, the history of the urban development in the Western Harrah can be classified into two periods. Firstly, the period before making the MDP, namely, before 1978. Secondly, the period between 1978 and 1990, which, in fact, covers the first two phases of the MDP implementation.

History of the Western Harrah Before 1978:

Physically, the Western Harrah is an expansion of Zugak Attaiyar Quarter in the south western part of the Central Area, which was separated from the Central Area when the First Ring Road was established. However, the area, historically, is one of several areas in Medina which were affected a great deal by the internal migration from rural to urban areas and the governmental policies concerned with transformation of nomadic life of the beduin to settled, particularly after the discovery of oil in the 1930's. The government, in fact, by that time was in the early stages of institutional and administrative evolution. Moreover, the urban block area was about 280 hectares. Its boundary in the western area

is as shown in figure (6.18) comprises of a very slight percentage of the total area of its recent proposed boundary by the MDP. The rest of the land beyond the urban boundary were mostly a public lands, i.e. owned by the government. But with regard to the "Ihiya" institution (see Glossary); the nomad migrants occupied these lands ,revived them and brought them into use and consequently by the time most of the western Harrah now is owned privately (more than 90 percent of the recent total area as was estimated in 1978). (MMRA,REP.NO. 12A).

In fact, the migrants influenced by the trend of public land infringement, which was and still is a phenomenon in Medina, as mentioned above, select land and during the week ends or other official holidays in the nights, establish a fence around and build one or two rooms in one of the corners. Then they go to the court and claim for a deed according to "Ihiya" institution. After they have got the deed from the court ;those that can afford to do so, replace the shabi(the traditional one storey building) building by a multi-storey reinforced concrete building.

By 1964 about half of the area was developed by this process. In addition, in the same year the Western Harrah had one of the largest areas of agricultural land in Medina as figure (6.18) makes clear. These farms were privately owned and most of them had come into the possession of their owners through the same legal institution. By this time, the first aerial photography for Medina was carried out by the Ministry of Interior. The only elements of land use structure were the squatter residential area as shown in figure (6.18) and there were only two paved vehicle routes which were Anbariyah road and a street branching from Sultanah Road to Seven Mosques Area. In addition to unpaved route link between Seven Mosques Area and Qiblatain Mosque Area, and the route of Hijaz Railway which ends at the Ottoman Railway Station in the southern part of the Western Harrah along Anbariyah Road.

Between 1964 and 1978 although the administrative and legal context was developed to a considerable extent especially in regard to the process of land ownership, the public land infringement and squatter

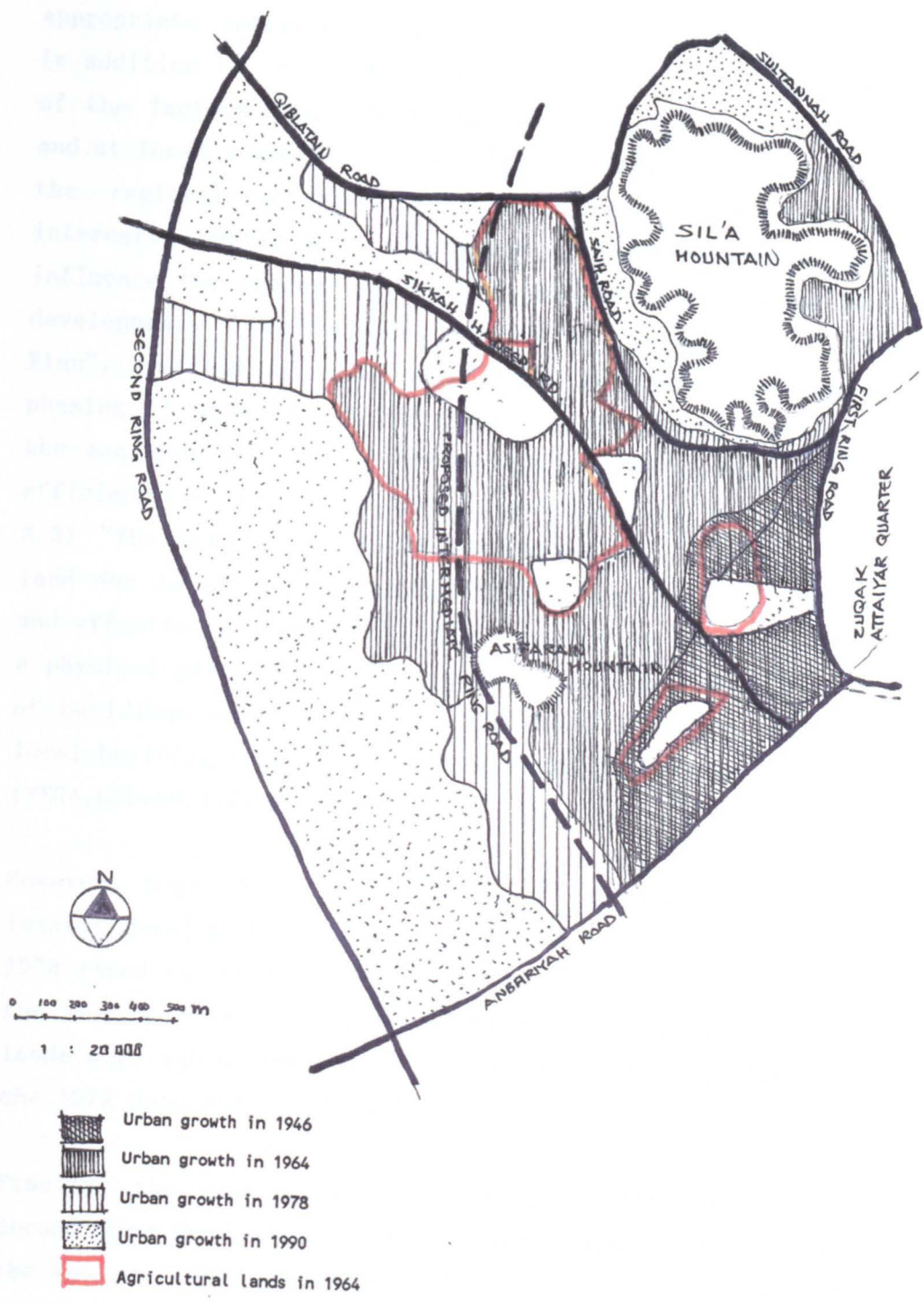


Figure 6.18: History of urban development and growth in the western harrah area.
 (source: Medina municipality)

development continued in the area. Thus, this period may be considered as the early stage of urban planning and management experience, which means less experience in practising the appropriate intervention to control the land use and development. In addition to the continuous influence of the tribal system as one of the factors that affect the political process both at national and at local government level. Tribes could appeal to the King or to the regional governor about any issue concerned with their interests, particularly the issue of land ownership, and in turn influence the process of decision making in regard to land use and development. Furthermore, the first Master Plan, "the Matthew Plan", involved only general physical recommendations concerning the phasing of urban growth and land use structure, without specifying the measures needed for implementation; which may explain the low efficiency of the local public and planning machinery. (See sec. 3.3) "The urban over spill encroached some valuable agricultural land due to absence of any building regulations, planning bye-laws and effective enactments." "The Master Plan merely tried to provide a physical plan without giving due regard to the design and pattern of buildings which would suit the local climatic conditions, using local building materials and contribute to the overall environment." (MMRA, REP. NO. 4: PP. 129).

However, some of the developments in the area were controlled and legally developed. In fact, 70 percent of the total population in 1978 lived in their own houses; 24 percent of them were bought while the rest were seized illegally (MMRA, REP. NO. 12A). In addition, some lands were sub divided and approved by the Municipality according to the 1972 Road and Building Act. (See figure 6.19)

Finally, the Road Authority in Medina established a part of the Second Ring Road which in particular bound the Western Harrah from the western edge, in addition to a main collective street from the Ring Road toward inside the area as shown in figure (6.19). Also, the Municipality constructed some roads such as Sikkah Hadeed, Qiblatain and Saih Roads.

The period between 1978-1990:

Though there was supposed to be a greater degree of control of urban development in this period, the situation in practice was different. In fact, by 1978 the Ministry of Municipal and Rural Affairs sanctioned an agreement with GACDAR to make the MDP (see sec.3.3). The agreement included the establishment of the Medina planning and development department. During the setting up of this department and the preparation of the MDP, including the WHAA Plan, the consultant was supposed to assist Medina Municipality and other governmental authorities in managing the urban development especially in day-to-day activities, in accordance with the objectives of the MDP in preparation and by co-ordinating activities concerning public projects. The MDP was completed and approved by the end of 1982.

The WHAA Plan was produced in the same year. So, instead of implementing the first stage of the WHAA Plan between 1978-1980, the stage was shifted to be carried out in the period between 1983-1986. During this period, i.e. 1978-1982; day-to-day control of development failed to follow the directions emerging from the MDP planning process, and many building permits were approved based upon the sketches considered by the court in the process of getting the legal deed; nor did the local government authorities base their own public projects and programmes in harmony with what was being proposed by the MDP. The consultant stated in the final project report in 1982: "The planning agencies efforts to suspend development activities in certain action areas till the preparation of their comprehensive plans have proved futile." (MMRA,REP.NO. 17/20: PP.151).

Later on, after the Plans were produced and approved, the Municipality which was upgraded from level A to Amannah level which meant more authority and power especially in adopting urban plans and policies(see sec.3.2). Nevertheless it found itself frustrated by the rapid growth and by the land market, which in turn increased the intensity of the operation of the day-to-day activities, from one side, and the lack of machinery capable of managing the planning

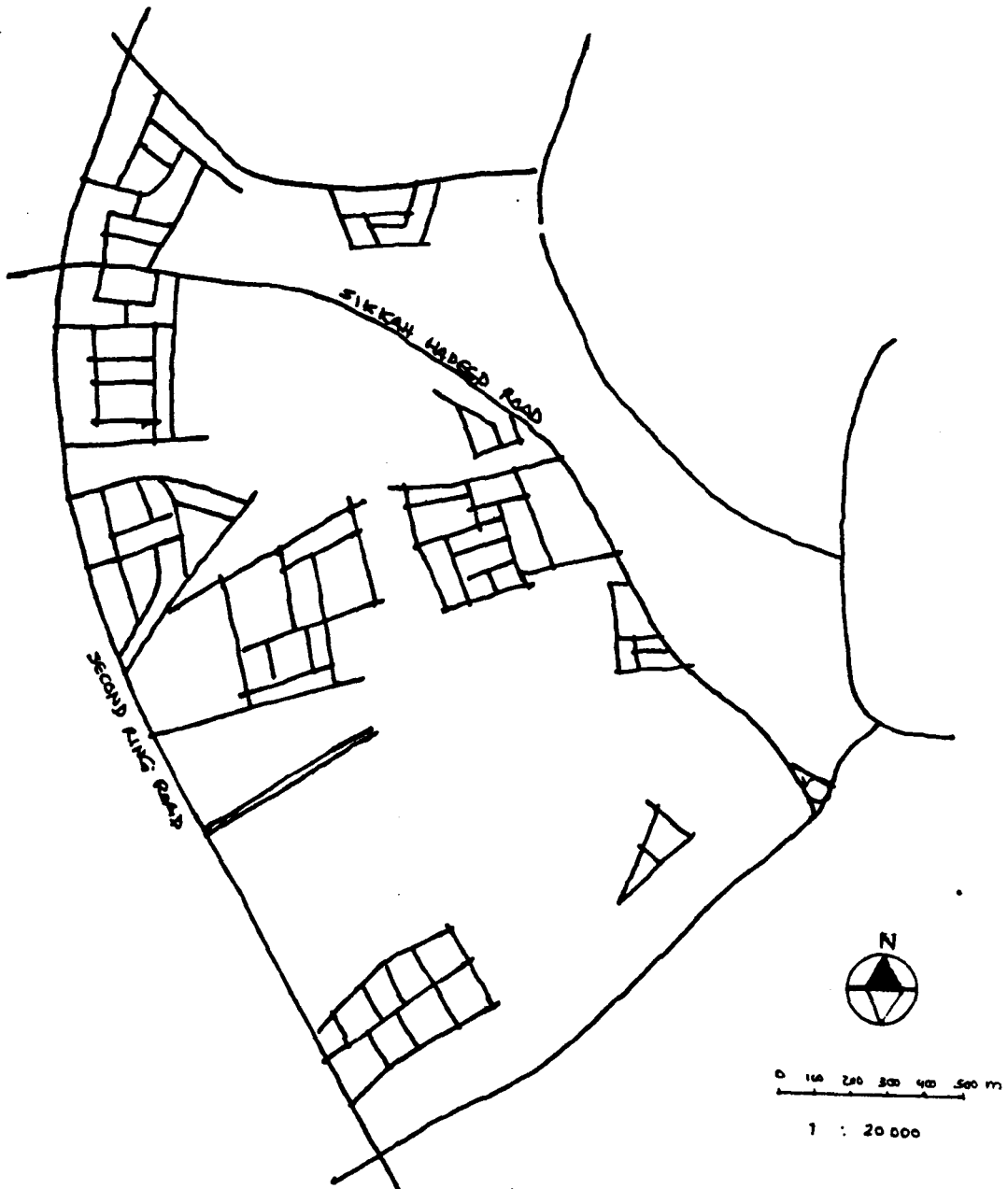


Figure 6.19: The major roads existed in 1978, and the land-subdivisions were approved.

(source: MMRA, Report No.5-III)

process and development in the long term, from other side, this led to weak utilization of The MDP recommendation ,particularly in regard to the administrative and management recommendations(see sec.3.4.2.7),by the Ammanh. In fact, up to 1985, the municipality did not make any clear effort to manage the implementation of the Action Area Plan, for example, by establishing a particular managerial machine as was proposed by the consultants.

Most of the projects completed or being constructed in the area were carried out in the same way as the Municipality had managed developments before the MDP was produced. However, the development of public machinery in Medina had a considerable influence on the land use structure and development of the Western Harrah as well as other areas in Medina. For example, Bab Assalam Road is almost complete because it was included as one of the most important projects in the Ministerial Committee framework and in the Central Area Development Committee programmes. In fact, the Road link between Pilgrimage Services Area falls in the intersection between Bab Assalam and the Non-Muslim Road, and the Central Mosque Area. Also, a long tunnel for underground services and mechanical equipment was established along the Road. The tunnel connects the main mechanical equipment building and center in the Pilgrimage Service Area mentioned and the basement of the Central Mosque. Another example is Saib Road which link between the eastern entrance of Medina, namely, Tabuk Road and its extension Qiblatain Road, and the Central Area. In addition, Tabuk Road, Qiblatain road and Saib Road , is the main processional route from the Royal Castle to the Central Mosque. Accordingly, Saib Road had the highest priority for special improvement and development.

In 1985 the Municipality sanctioned a comprehensive scheme for replanning the scattered areas in Medina which were determined as shown in figure (6.20). Zone A, B and C comprise actually of the Western Harrah Area. Zone D falls in the south of the Western Harrah while E and F are located in the southern and eastern parts of Medina, respectively. The project was assigned to a local national consultant to formulate the appropriate detail plan. Regarding the areas falling within the Western Harrah, the main concept was very

close to the general outlines of the WHAA plan and it was based on the main objective highlighted by the GACDAR consultant. But the new concept was affected considerably by existing conditions. The Western Harrah was developed entirely.

Very few sites remained vacant. Moreover, as mentioned above, most of the area was privately owned. Thus many sites which were identified for public facilities and services, either within the approved land sub divisions or within the WHAA Plan, were replaced by a residential use as a consequence of the land market and the weak response from the government local authorities. Consequently, the proposed land use structure of the Squatter Replanning Scheme (SRS) for the Western Harrah has faced many obstacles in term of implementation. Figure (6.21) shows how many lands and buildings need to be expropriated and demolished and only in one of the three areas fall within the Western Harrah, although the consultant based his concept on minimizing the amount of expropriation needed as one of the main considerations. Most of the officials interviewed declared the proposed plans as impractical and unimplementable. As a matter of fact, the land prices ranged between S.R(Saudi Rial).700-7500 per square meter but mostly the dominant price is S.R 1500 per square meter (about . 250 per square meter in March 1991's value). Accordingly no further attempt has been made to effectuate the SRS plans. However, the Road Authority of Medina contributed in developing some roads in the area during the period between 1985-1990, such as Giblatain Road, and Saib Road.

Furthermore, most of the public facilities and services established recently are not in harmony with either the WHAA Plan or SRS Plans because both of them have not been adopted by the Municipality in its day-to-day making process. Also, most of the local Ministerial subordinates responsible for these facilities and services prefer to rent buildings rather than to establish a new buildings because it was cheaper to do so ,and this resulted in locations which did not conform to the proposals of the urban plans. Similarly, Mosques were actually provided through the Endowment Authority in two ways.

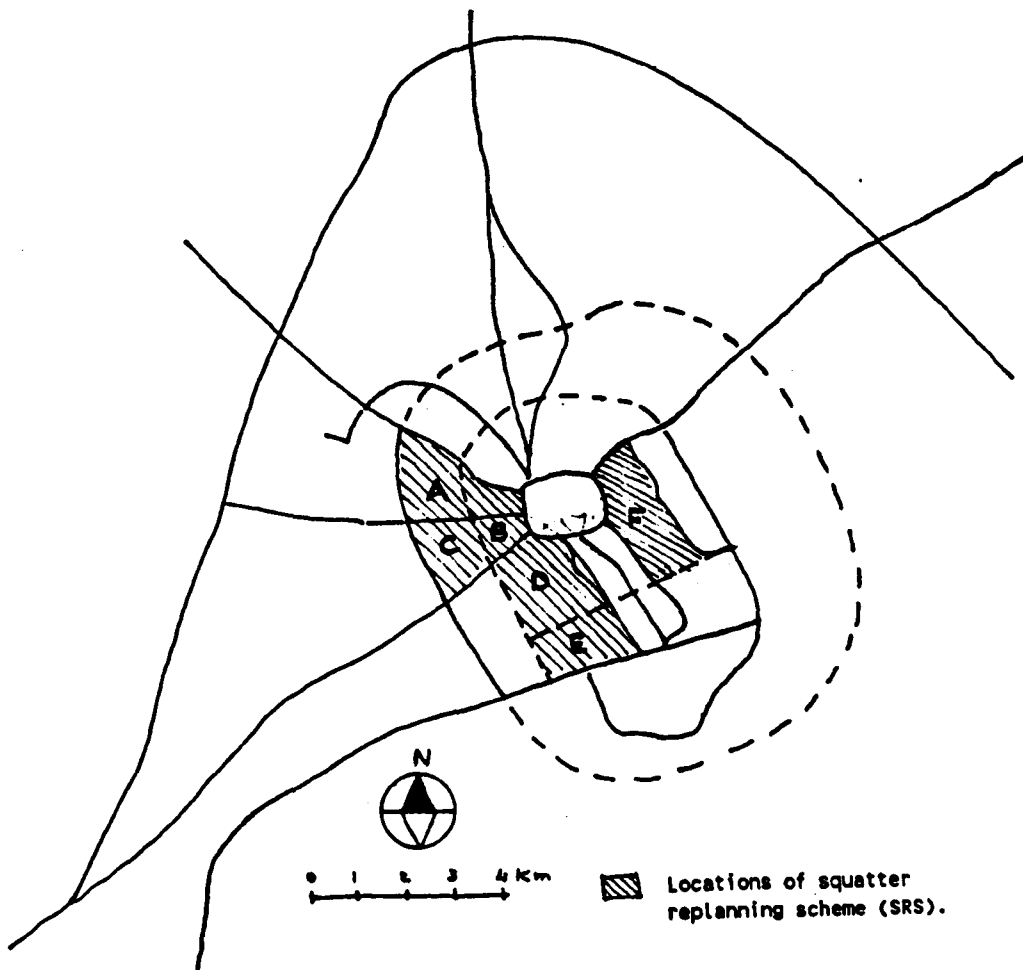


Figure 6.20: The selected locations needed replanning.
 (source: Medina Municipality)

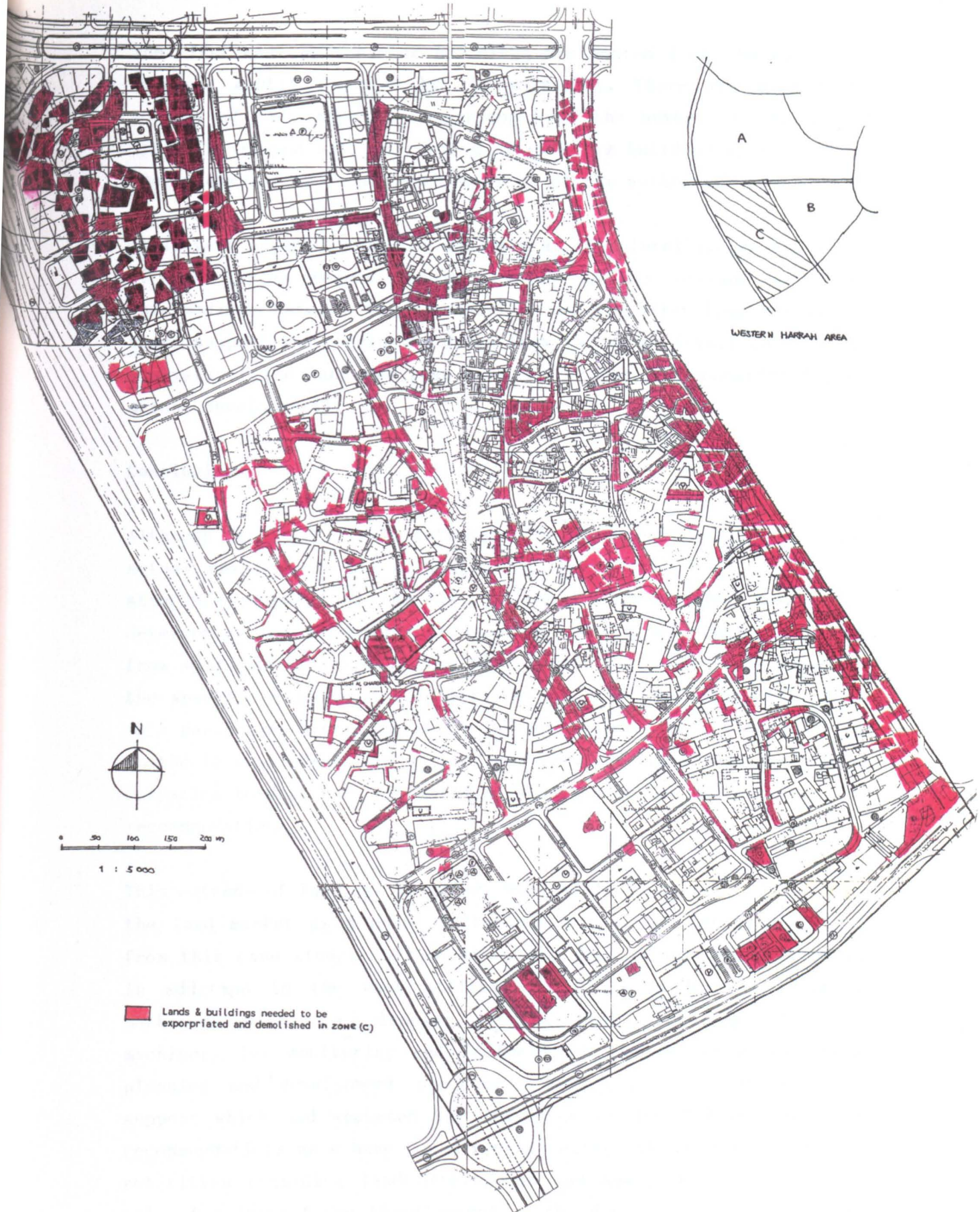


Figure 6.21: The land and buildings proposed and needed to be expropriated and demolished to implement the proposed development by Sumait Consultant in 1985. (source: Medina Municipality)

The first was, by erecting buildings designated from the outset as mosques, mostly financed by the authority. There are many fewer mosques of this type in comparison with the number of the second type. The second was, by renting an existing building where cost is mostly carried by people with approval of the authority.

It is very apparent that the analysis at this level(i.e.in the level of the larges renewal project which is may considered as an intermediate between the macro-level and micro-level,as classified above)support the conclusion drawn from the macro level(i.e.from the analysis of the land use plan proposed by the MDP comparing to the actual development).

Conclusions

Although it was difficult to assess the degree of conformity of the actual development and allocation of land uses, to the land use structure proposed by the MDP, it can be argued that the actual development and allocation of land uses was considerably different from what was outlined by the MDP. Particularly when one examines the specific allocation and hierarchy of land uses and urban units in a particular area such as the Western Harrah Area. In addition, to the lack of number and size of services and facilities are needed comparing to what were estimated as standard in the MDP outlines and recommendations.

This outcome of land use structure were affected in their pattern by the land market as a major factor which was, as can be concluded from this case study, influenced by the land owners and ownership. In addition to the weak utilization of powers by the planning machinery within a planning process that lacks an efficient machinery for monitoring and following-up the mechanism of urban planning and development process. Moreover, the lack of legal support which had weakened the influence of the MDP outlines and recommendations as a base for directing either the private or public activities regarding land development and use. Additionally, the role of private firms (developers) in the dynamic or urban planning process.

In fact, the pattern of land ownership in Medina which was dominated by the private ownership (Mulk) especially in the central and, within and close to the Second Ring Road has influenced the land use allocation control. In addition to the land prices which were affected by the land market structure in Medina and affected considerably the public decisions concerned with site selection for public projects.

Another factor was influenced the outcome pattern of the land use structure was the utilization of available powers by the planning machinery which was to a great extent not compatible either with the rapid growth and development of urban land or with requirements of the MDP outlines. Although the MDP proposed a certain regulative framework involving a zoning ordinance, official maps, and land sub division regulations, only a third of them were utilized but according to the regulations were sanctioned in the central office for all municipalities all over the country. Practically, these regulations have not been complied with, compared to the actual land sub divisions which were given permission for development either by the private or the public sector. Regarding the zoning ordinance there was not a comprehensive map which was approved as a legal base, but only a map for classification of Medina according to the permitted building heights. The official map tool was omitted completely. Public projects, although a possible means of implementing the MDP, were supported considerably during the first phase, but were implemented without considering the MDP's outlines. After that the public projects were influenced by the effectiveness of their specific implementational difficulties which in some cases resulted in a delay or suspension of the works, while in the others the process. Moreover, the lack of effectiveness of public projects was due to the lack of co-ordination and a monitoring process within the urban planning process as a whole which, as a consequence, led to the abandonment at the order of priorities for implementation proposed by the MDP. There was in particular a lack of concern for action areas, and the hierarchy of the urban units emphasized on by the Plan.

Furthermore, it was very clear from the analysis that the Plan and its documents lacked legal support either by the appropriate administrative level (such as the Council of Ministers), or by the Court which based its decisions upon the Islamic Sharia. The court system, because it represents directly the practice of Islamic Sharia, used to gain the support and credibility from people in general, and in some cases became the last and only authority for appeal against unacceptable decisions of government (for example many land ownership cases dependent on the institution of "Ihia" where won through the court). Accordingly, the MDP was not given legal status by the municipality and other governmental agencies.

Lastly, through the analysis of the land use structure implementation, the role of the private firms in operating the urban planning process appears clearly. Most plans, policies and project designs were being made and implemented and followed up by private companies. Some of them have wide experience in making, implementing and monitoring implementations within the Saudi context such as Ibn Laden, Dar Al Handasa etc. In addition to the power and influence they have in some cases such as Ibn Laden who has been involved in the process of making and taking decisions in the highest level of the planning machinery in Medina which is the Ministerial Committee for the Medina Development.

CHAPTER SEVEN

THE ROAD NETWORK PROPOSAL

This is the third case can be classified within the macro-level. Mainly the chapter will involve an identification of the proposed outlines of the traffic network, by the MDP. Then ;following at pattern adopted above, the degree of conformity between proposals what actually happened will be assessed. Consequently, the factors that influenced the performance of the MDP implementation are to be investigated.

7.1 Road Network

The road network proposed by the MDP is actually one of several components of the transportation Plan. However, the focus here will be only on the physical aspect of the network, i.e. the location and, form of the network and its components.

7.1.1 The Strategy and Pattern of the Road Network was proposed by the MDP:

The concepts of the proposed network by the MDP is based on the need to disperse traffic outside the Central Areas, which consequently in addition to eventual testing of the movement in the existing network and the potential land use structure alternatives provides a base for the classification of roads and streets (MMRA, REP.NO.9).

Accordingly, the traffic network shown in figure (7.1A) which depends completely upon the first ring road to disperse the heavy movement outside the central area, was replaced by a new proposal which is presented in figure (7.1B). In fact, the proposal has two features, firstly, the Intermediate Ring Road which was expected to relieve the anticipated congestion on the first ring road by distributing the traffic in the area situated between the first ring road and second ring road. Secondly, the first ring road together with its proposed modified loops, i.e., primary radial roads, will

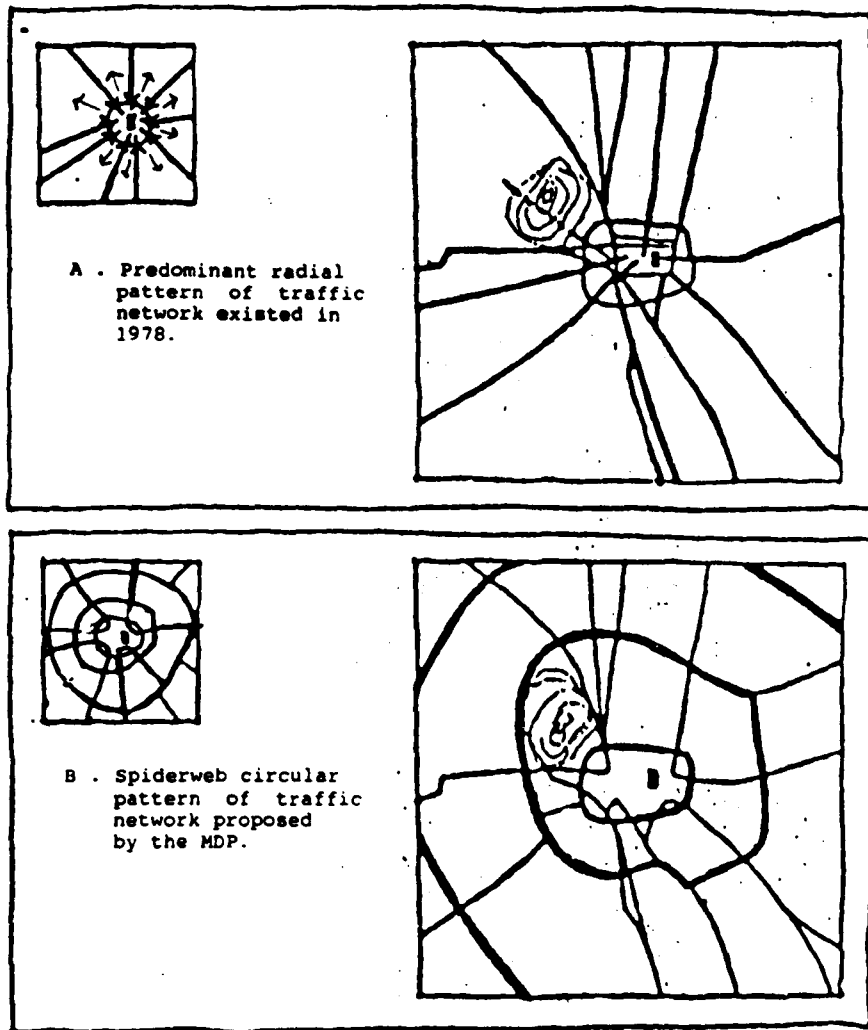


Figure.7.1 : A comparison between the existed pattern traffic network in 1978 and the proposed one by the MDP. (source: MMRA, Report No.9)

greatly enhance the sanctity and the character of the Central Area by eliminating traffic congestion. (MMRA,REP.NO.9)

Furthermore, the proposed network by the MDP included a specific hierarchy which involved the following:-

a. Express Route: defined as "a divided arterial highway for through traffic with full or partial control of access and generally with grade separations at intersections." (MMRA, REP.NO.9: PP.195). This type, included the following as shown in figure (7.2):

- The entire stretch of Non-Muslim Road.
- Mattar Road extending beyond the second ring road.
- Hijjah Road up to Second Ring Road.
- Tabuk Road up to junction with Non-Muslim Road.

b. Primary route: defined as "an arterial highway with intersections at grade and direct access to abutting property." (MMRA, REP. NO. 9: PP.195). It included as clarified in the figure: - first ring road (the stretches of loops only).

- The western part of Second Ring Road from the intersection with Sultana Road, with its voluted extension up to Non-Muslim Road.
- The Intermediate Ring Road (the northern and eastern stretch only).
- Abu-Thar Street (the stretch between the First and Second Ring Roads).
- King Abdullal-Azeez Road up to the extension of Non-Muslim Road.
- Awaly, Qurban and Quba Roads (widening of the existing roads up to Hijjah Road).
- Sultana Road up to Second Ring Road.
- Bab Assalam and Islamic University roads up to the Second Ring Road.

c. Secondary route: to distribute traffic to the principle districts of the town by forming a link between the express routes and local residential, commercial employment and business areas. (MMRA,REP.NO.9) The following roads were suggested by the MDP to be categorized and developed as secondary routes:

- The remaining part of the First Ring Road.
- Anbariyah Road up to its junction with Non Muslim Road.
- Stretch of the Intermediate Ring Road through western Harrah up to Hijjrah Road.
- The eastern end of the voluted Second Ring Road.
- Uyoun Road beyond Second Ring Road.
- Eastern extension of Hijjrah Road up to Second Ring Road.

Tertiary Route: to distribute traffic from the primary routes to the local areas. (MMRA,REP.NO.9) It included the rest indicated routes in figure (7.2).

e. Access or collector route: the lowest type of vehicle route. It gives direct route access to individual plots or buildings. Figure (6.3) in (sec. 6.1.1) shows the form of this type of route, namely, the collective routes.

7.1.2 Degree of Conformity of the Actual development with the network proposed by the MDP:

Regarding the actual development of the network, figure (7.3) exhibits the existing condition up to 1990. It, indeed, has two main features, firstly the development that involved major change in the essential concept and strategy of the network in addition to the disconfirmed in implementing the main elements of it. Secondly, the developments that did conform to the MDP proposals depart in detailed implementation in terms of technical improvements and developments such as the width of the road and accordingly its level in the hierarchy as a whole.

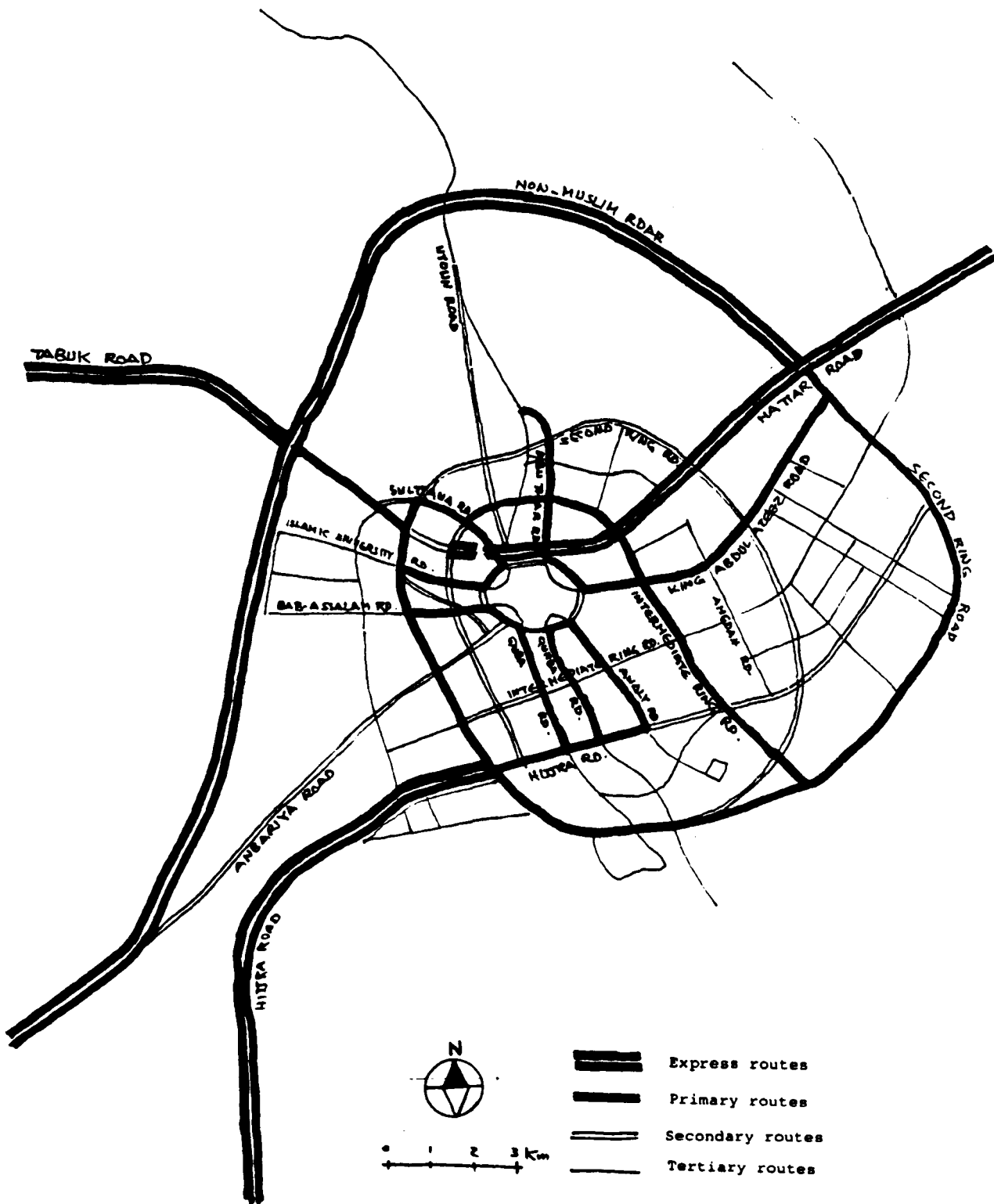


Figure 7.2 : The proposed traffic network by the MDP.
 (source: MMRA, Report No.9)

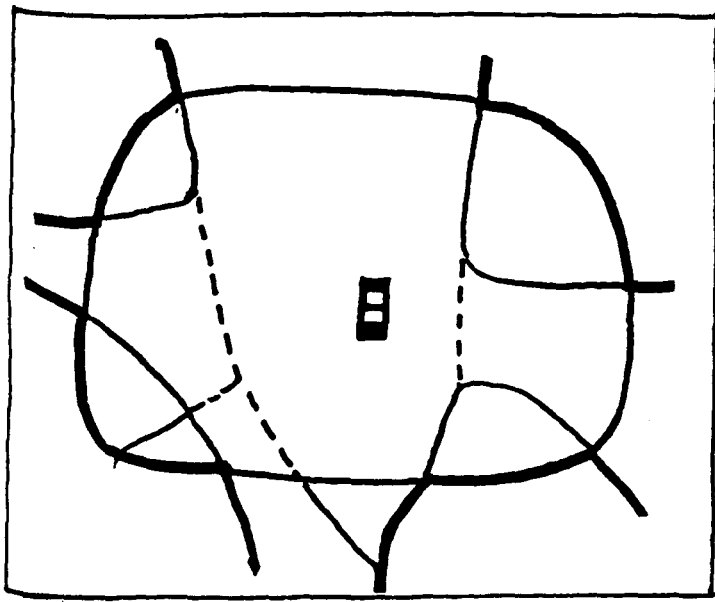


Figure 7.3 : The actual network of roads (existing condition in 1990).
 (source: Medina Municipality)

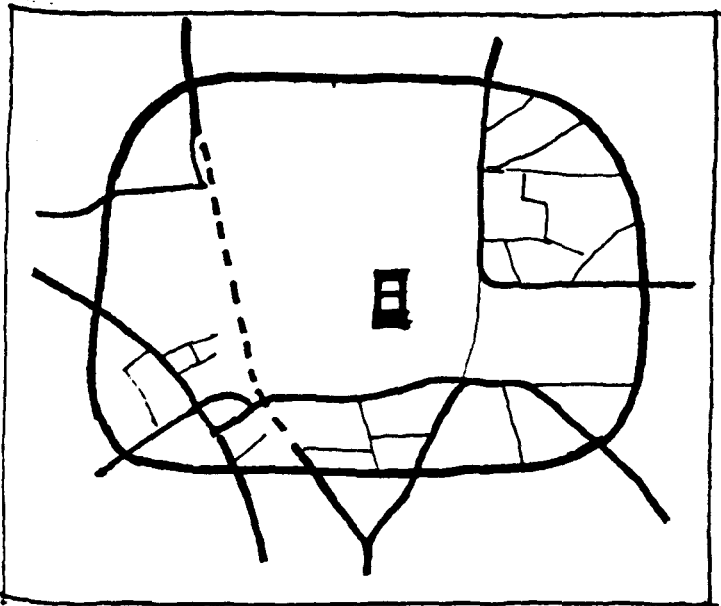
The major change of the proposed strategy appears clearly in the cancellation of part of the Second Ring Road extending from the southern side of the city up to the Non Muslim Road. Other changes include the proposed Ring Road called "Third Ring Road", and the extensions of King Abdullal-Azeez, Bab Assalam and Hijjrah roads. In addition the Intermediate Ring Road still has not been completed, particularly the northern and western stretches, as well as the Second Ring Road which has only been constructed partially, namely, the western part between Sultanna Road and Hijjra Road. Most of the radial routes such as Bab Assalam, King Abdullal Aztec, Tabuk, Mattar, Uyoun roads have been improved and developed. Consequently this means the first Ring Road is still suffering from congestion. In other words, the traffic network still operates in the pattern as shown in figure (7.1A), which depends on the First Ring Road to disperse the traffic, which flows through the radial routes, outside the Central Area. However, by looking at the pattern of the road network within the Central Area in figure (7.4B and C) we can say it has partially followed the guidelines outlined by the MDP, in the current network and in the plan for the Central Area Development proposed for the 1990's ¹ for the Central Area Development by Ibn Laden Corporation. In fact, Manakha Tunnel was implemented which in turn widened the pedestrian from the western part of the area, and eliminate the ground ² vehicle movement through two separate loops; the north western loop and south western loops. Also, the demolition of the northern part of the area and cancellation of Sahah Street which was a connection between Abu-Thar and Manakha streets, has separated the vehicle movement into the north western and eastern loops only, which in turn has increased the area for pedestrian movement in the northern part of the Central Area. Also, the south eastern loop has been separated not in the actual state but in the approved new Plan of the Central Area (see figure 7.4c). While the south eastern and western loops have been retained, in the new Plan, and are connected with each other through Court Street.

¹ The plan was original Traffic still flows through this route but is now routed underground

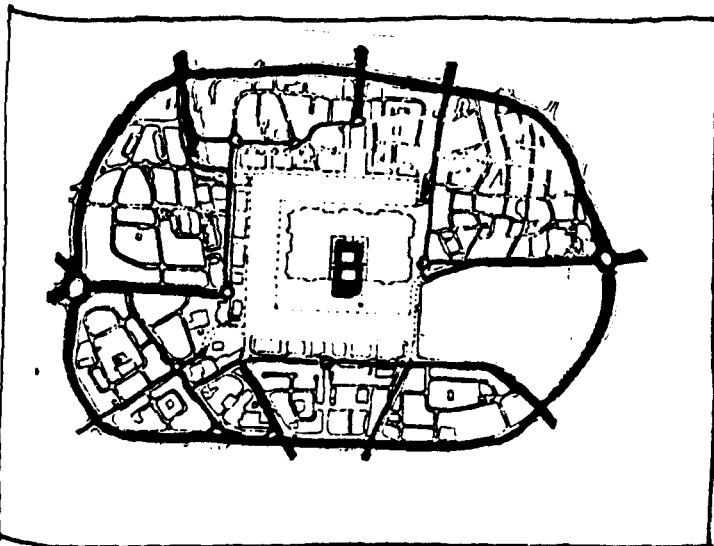
² Traffic still flows through this route but is now routed underground



A . The proposed traffic network by the MDP.



B . The existing pattern in 1990.



C . The proposed and approved pattern by Ibn Laden corporation.

Figure 7.4 : A comparison between the traffic network patterns within the central area in the proposed plan by the MDP, and the existing pattern one in 1990 ,and the proposed plan by Ibn Laden Corporation in 1990. (source: Medina Municipality)

In addition, it can be seen in figure (7.3) that several main routes have been implemented either completely or are under construction. In fact, the eastern part of Hijjrah Road up to Qurban Road, King Abdullal Azeez Road up to the Third Ring Road, Bab-Assalam up to Non Muslim Road, the extension of Abu-Thar Road up to the route of the Second Ring Road and the development of Tabuk Road up to Saih Road,

have been almost completed. Many other roads and streets are under construction or have been approved for implementation according to the guidelines recommended by the MDP, such as the extension and link of Tabuk Road with Mattar Road through Sil'a Mountain, the extension of Hijjrah Road up to the proposed route of the Third Ring Road, Quba, Qurban, Awali Roads and Uyoun Road. Some of the road developments whose routes do conform to the plan, could paradoxically be considered as non-conforming in regard to detailed technical aspects such as the width, form and level according to the hierarchy proposed by the MDP. For example, the Second Ring Road was approved for implementation in the beginning of the 1980's, involving a designated width of 84m for all the road while it was proposed to be a primary and secondary route as shown in figure (7.2). Similarly, the width of Hijjrah Road in particular with stretch between the proposed route of the Second Ring Road up to the proposed Third Ring Road.

In sum, it can be argued. regarding the main strategy of the network, that although some specific elements of the network have been effectuated, the essential part and of the network has not been implemented yet and the pattern of the existing network is still predominantly radial in character while the proposed character is that of a spider's web, with concentric rings. And accordingly the pattern of the vehicle movement flow from and to the Central Area is similar to the pattern existing before the MDP, was produces.

7.1.3 Factors influencing the implementation of the proposed traffic network:

Based on the same two features, the change to, and the failure to achieve the main strategy of the proposed network, and the lack of

conformity in the detailed technical aspect of each of the individual elements of the network, the analysis of the implementation performance can be undertaken.

Regarding the first feature, the most significant element, is the failure to implement the Intermediate and Second Ring Road the explanation for which is basically historical. In 1975 the Directory of Roads in Medina adopted the establishment of this project as a consequence of a suggestion which was manifested in a local newspaper and directed to the mentioned authority. In the same time the MMRA sanctioned a contract with a consultant (Barsons Brown International Corporation:BBIC) who was working on another project concerned with Medina roads and streets, back in 1973, involved an establishment of the same project. And as a matter of fact, this project, i.e. the Second Ring Road was included in the recommendation of the Matthew Master Plan. BBIC also included it in their recommendations for the Medina Roads and streets study in the same year, namely, 1973. (MMRA, 1988)

It seems that there was competition between the Ministry of Communication (MC) and the MMRA to adopt and include this project in their achievements. Both ministries signed a contract to make a plan for the project. In 1977 Brown's firm produced the proposed plan which involved a 17 kilometre Ring Road with 10 intersections (see appendix) while the communication ministry started in constructing a part of the project between Sultana Road and Quba-A'bar Ali Road (now named Hijjra Road). And because of the better experience of the (MC) represented by Directory of Roads in Medina the project was assigned to her by the High Committee in Medina for city planning. Accordingly the project was included within the studies being done by local consultants for the MC. The study of the Second Ring Road was produced by 1981. It was 27 kilometers long and 84 m wide, a difference of about 10 kilometers from proposal by Brown's firm. (see appendix A-8). During this time, i.e. between 1978-1981, the the MDP was being formulated. The consultant was responsible of MDP formulation and the Municipality were not satisfied with MC's plan for the Ring road as declared by one of the officials in Medina Municipality. Moreover, this dissatisfaction was because the

calculations of the MDP consultant discouraged the establishment of the project, "The model did not support the provision of Second Ring Road especially the stretches on the east and south of the city" (MMRA, REP.NO.9:PP.190).

On the contrary, the MDP consultant preferred the Brown's design, and for this reason most of the primary works (e.g. Rep.NO. 1,3,4,5 and 8) involved figures showing the map of Medina particularly the road system included BBIC plan for the Second Ring Road. In addition, all the maps represented the proposed land use structure involved a road link between the southern part of Second Ring Road's proposed route and the Non Muslim Road in a voluted form with the route of Second Ring Road. This part was indicated in these maps as a part of the Second Ring Road and categorized as a primary route while the northern and eastern stretches of the Ring Road were categorized as secondary roads. However, the Directory of Roads assigned the Second Ring Road implementation to a Turkish firm in 1984. Unfortunately, the financial support of the project was affected by the deficit in the national budget which started by 1983 and reached a peak in 1986-7. In addition the contractor was found to be inexperienced and unskilled in administering and managing the implementation of the project. Moreover, he offered a bid that was low enough to get the contract but was too cheap to cover the actual costs which led the authority to withdraw the project from him in 1988. It was now assigned to another contractor, the Ibn Laden Corporation, who had already been given the contract for the enlargement of the Prophet's Mosque and the development of the Central Area. This situation of the Second Ring Road affected indirectly the implementation of the Intermediate Ring Road, in addition to other factors. In fact, most of the officials in the Municipality believe that if the Second Ring Road is implemented then there is no need for the Intermediate one because there is little distance between them. In addition, the Intermediate Ring Road would be costly to build as it goes through built-up residential areas which mostly have a high land value. Figure (6.21) shows how many buildings would need to be expropriated and demolished in the part of the road which goes across the Western Harrah. For this reason neither the Intermediate Ring Road nor the

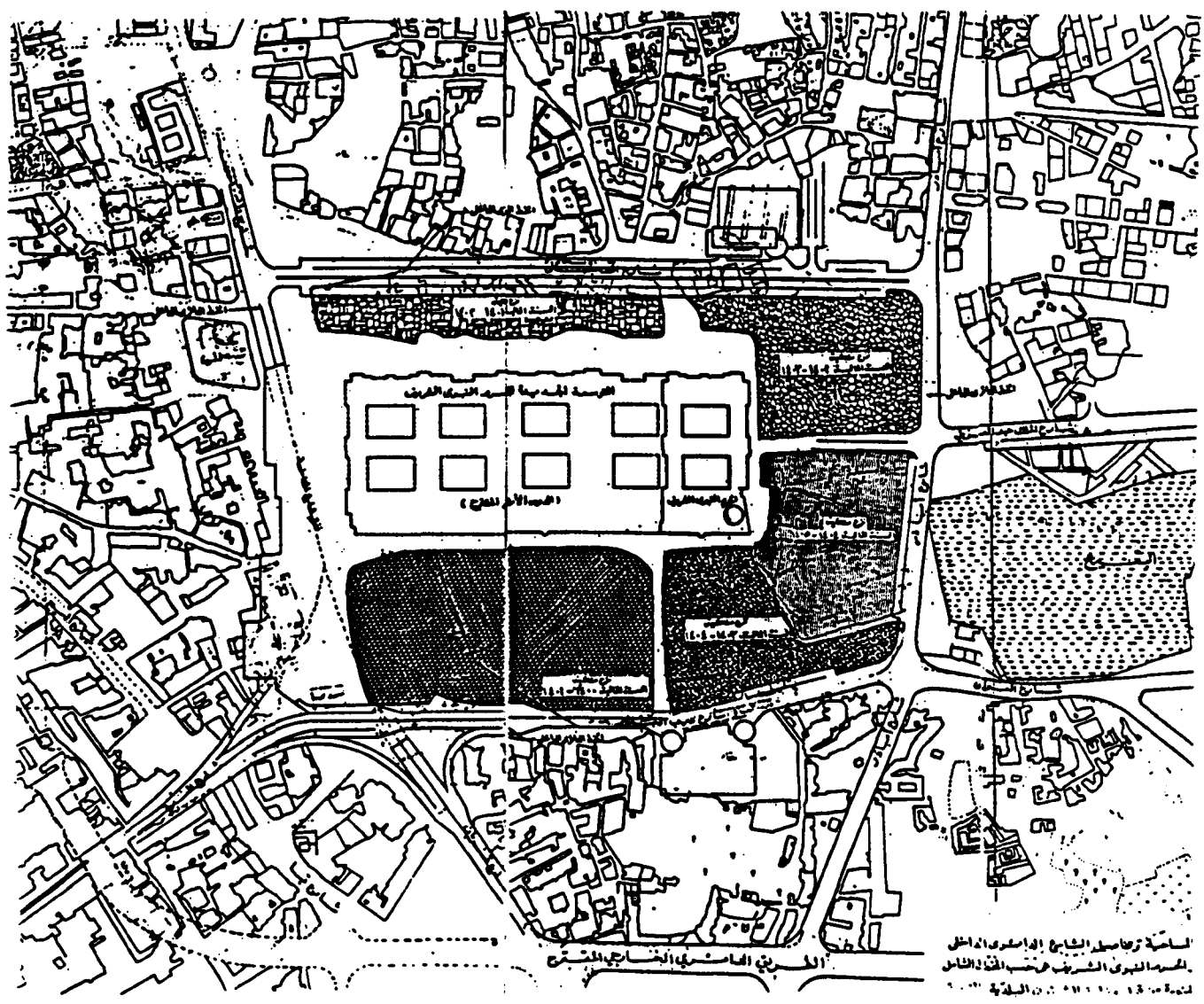
Second Ring Road have been built. By 1989, the Municipality signed a contract concerned with making a comprehensive planning study involving a socio-economic survey, transportation survey and modelling, execution plan for Medina, action area plans, urban road planning and design and public park planning and design. As a result, the work in the Second Ring Road has been temporarily stopped until the transportation survey is completed according to one of the recommendations of the High Committee for City Planning in Medina in 1989.

Furthermore, the Third Ring Road which added a new element to the traffic network represents another side of the change in the main strategy for the network proposed by the MDP. In fact it was decided to establish the project as a consequence of the rapid growth of dispersed development in residential areas outside the urban block as mentioned in (sec. 5.2.1). And as one of the basic components of the urban boundary scheme was proposed by the MMRA, for Medina. The Third Ring Road is also a very important element in directing the future growth of urban development. It is actually one of the development projects included within the Ministerial Committee's Programme of Medina Development, which consequently speeded up its implementation. In fact, 30 million Saudi Riyals was approved for the primary phase which was an assessment of the road route, and soil pavement. The length of the road is 80 kilometers with 100 m width. one radial roads which link between the Third Ring Road and the Central Area, such as Quba, and Qurban roads from the southern part of Medina and Bab Assalam Road from the western part, with 7 kilometers length for the Quba and Qurban roads, and 10 kilometers for Bab Assalam.

The other element of the main strategy, for the proposed network, were the radial routes linked with the loop system within the Central Area. As mentioned above according to the comparison manifested in figure 48, the loop pattern was mostly effectuated, because most of them were taken into account in developing the Central Area, as an essential route that serve the area and transfer people to and from it.

Between 1976 and 1978 the MMRA decided to review the Matthew's MP as discussed before. Accordingly, a special detail plan was drawn for the Central Area in addition to the traffic network. At the same time the Directory of Roads was continuing in constructing the streets according to its own outline and schedules which was considered by the Matthews Plan. Also, the Two Holy Mosques Presidency (THMP) was preparing a plan for the enlargement of the Prophet's Mosque and the development of the area around. Figure (7.5) shows the plan proposed and the stages of implementation. It emphasized the outlines of the traffic network proposed by the Matthew Plan. In particular, the establishment and improvements of Sohamey Road, Abu-thar Road, Darb-Al-Janyez Road (previously known as Court Road), and adaptation of Manakha Tunnel establishment which was actually in the process of formulation. By the start of work on the MDP, many elements of the Central Area traffic network proposed by Matthew's Plan were effectuated such as the first ring road, Abu-Thar Road, King Abdullal Azeez Road up to the first ring road and Manakha Road as proposed by BBIC, not as a tunnel. During the period between 1978-1985 further improvements were made to the First Ring Road such as an establishment of a bridge in the southern stretch over Qurban Road. In the same period the Manakha Tunnel project was started which was eventually completed by 1987. By 1985, a project involving massive enlargement to the Prophet's Mosque was approved and announced as a government commitment for the next period. The Municipality was one of the main participants in the process as the Mayor had already taken up and role he still has as Secretary of the Ministerial Committee.

From 1985 until 1990, the Municipality budget programme involved only the first step of comprehensive development of the Central Area such as the model making of the areas in 1986, and a particular survey for the land uses and building conditions of the Area in 1988. This was in addition to the ongoing projects such as the bridge along the southern stretch of the first ring road and Manakha Tunnel. Some temporary paving of internal collector streets within the Central Area was also undertaken. However, in 1987, the Municipality with the assistance of the World Bank started a planning study concerned mainly with the development of the Central








-  PROPOSED EXPROPRIATION FOR YEAR 1980-81
-  PROPOSED EXPROPRIATION FOR YEAR 1981-82
-  PROPOSED EXPROPRIATION FOR YEAR 1982-83
-  PROPOSED EXPROPRIATION FOR YEAR 1983-84
-  PROPOSED EXPROPRIATION FOR YEAR 1984-85

Figure 7.5 : The plan of mosque's enlargement and the development of areas around it, proposed by the Presidency Two Holy Mosques Affairs.
 (source: The Two Holy Mosques Presidency)

Area. The study was not included within the Municipality's Annual budget until 1990. But it was used as a means of communication between the Municipality and the World Bank Office which is supported financially by the Ministry of Finance directly. The study was a base for a detailed plan of the Central Area land use structure in addition to specific plans for the road networks and parking lots . This study and the survey accomplished by the Municipality in 1988 were the basis for the Plan made by Ibn-Laden in 1990 which was in the process of approval by the Ministerial Committee . Ibn Laden Corporation has started the project in co-ordination with the Municipality in the first stage. At the same time the owner of the Corporation was a member of the official office and Committee which was established to follow up the process of development approved by the Ministerial Committee. The official office for following up is headed by the Prince of Medina (Governor) and includes the Mayor as a member in addition to other concerned Directors of the local governmental agencies. The northern part of the Central Area has been and is being expropriated and demolished as a consequence of and according to the Ibn-Laden Plan, Financially, the Corporation deals with Ministry of Finance directly and thus the Corporation is parallel to the Municipality in terms of decentralization. Moreover, the establishment of Taiba Corporation which is a semi private-public organisation has been a way of privatizing the development. In other words the degree of private sector involvement in the process of urban development in Medina especially in the Central Area has increased.

Furthermore, the other elements of the network as a whole in Medina such as the radial routes (e.g. Tabuk Road, King Abdullal Azeez up to third ring road and Bab Assalam) and the express routes such as Hijjrah Road up to Second Ring Road from the east, Non-Muslim Road and the link between Mattar Road and Tabuk road; all these elements have been and are being carried out because they were included in the Ministerial Committee programme although the Committee was established for the sake of the Central Area Development, as the members were convinced with the relevance of these elements to the function of the Central Area, which in turn expands the concern of the committee to be for the Medina Development.

Conclusions:

In summary, it can be argued that most of the road projects have been implemented in Medina, but the physical outlines were envisaged by the MDP based on a particular strategy have not effectuated yet, at least the parts due for completion by the end of 1990. Examples include the Intermediate and Second Ring Roads while another Ring Road has been proposed and initiated although it was not included within the MDP proposal.

This pattern of outcomes is the result of the rapid growth and development in Medina, and the inability of the local planning machinery to cope with the consequences of such growth and development. This appeared clearly through the rapid development that included and exceeded the location and route of the Intermediate and Second Ring Roads, in some parts, which led to greater expenditure on expropriation. In addition, most officials in the municipality were against constructing the Intermediate Ring Road especially after approving the project for the Second Ring Road claiming that there was no need for the Intermediate.

Similarly, the cost of other road projects which were elements of the network proposed by the MDP such as the radial roads which carry traffic in the Central Area of Medina (for example Tabuk Road, Anbariyah Road, Mattar Road and King Abdullal Road etc) was high. But the involvement of the Central Authority through the Ministerial Committee had a positive influence on their implementation.

Another factor influencing the outcome, was the skill and experience in managing and implementing projects such as the Second Ring Road, either of the local government directorates or the private contractors. Yet another factor was the financial supply which may be approved for the project as a whole for the potential period of its implementation which could take more than one year, but fluctuates with regard to the annual flows to the extent that weaken the productivity of the on going works. In addition, the Second Ring Road was affected in the stage of designing the project, by the conflict between the administration responsible for the preparation

of the MDP and the Ministry of Transportation whose responsibility
legally was the Second Ring Road

CHAPTER EIGHT

THE IMPLEMENTATION OF URBAN PROJECTS

In this chapter, the analysis will entirely concern the micro level (i.e. will observe the implementation phenomenon through some specific individual projects). The projects to be examined here are the Medina public park, Manakha tunnel, and Medina main entrances.

8.1 Medina Public Park (MPP)

As a very specific case of land use and development by a governmental action; the MPP planning process will be examined here.

The project was proposed to implement the general recommendations highlighted by the Matthew Master Plan in 1973. "At present the recreational facilities available in Medina are limited. Medina needs different recreational facilities." (MI.1973).

During the period between 1973 and 1978 the Municipality included in its projects budgeting programme, a study and designation of a public park, in addition to A'Kool Park. The study and design of the park was accomplished by 1980 by an Italian Consultant Franco Albeeni and the site of the park was determined to be in the northern part of Uhod Mountain along the northern side of Non-Muslim Road. The idea was based on the functional advantages that could be benefited from being close to the Water Treatment Plan which was established at the intersection between Non Muslim road and Uyonn Road. The major advantage, was estimated, was the fulfillment of water needs (water needs for domestic purposes about 18.250 C.M./year and about 230 C.M./year for irrigation purposes)¹. Figure (8.1) shows the site was selected by Franco Albeeni which is indicated by site (I).

To approve the proposal the design was submitted to the MMRA. In 1981 the Municipality in Medina suggested to the MMRA the same consultant to supervise the process of the park proposal

¹ Medina Town Recreation Park final Proposal

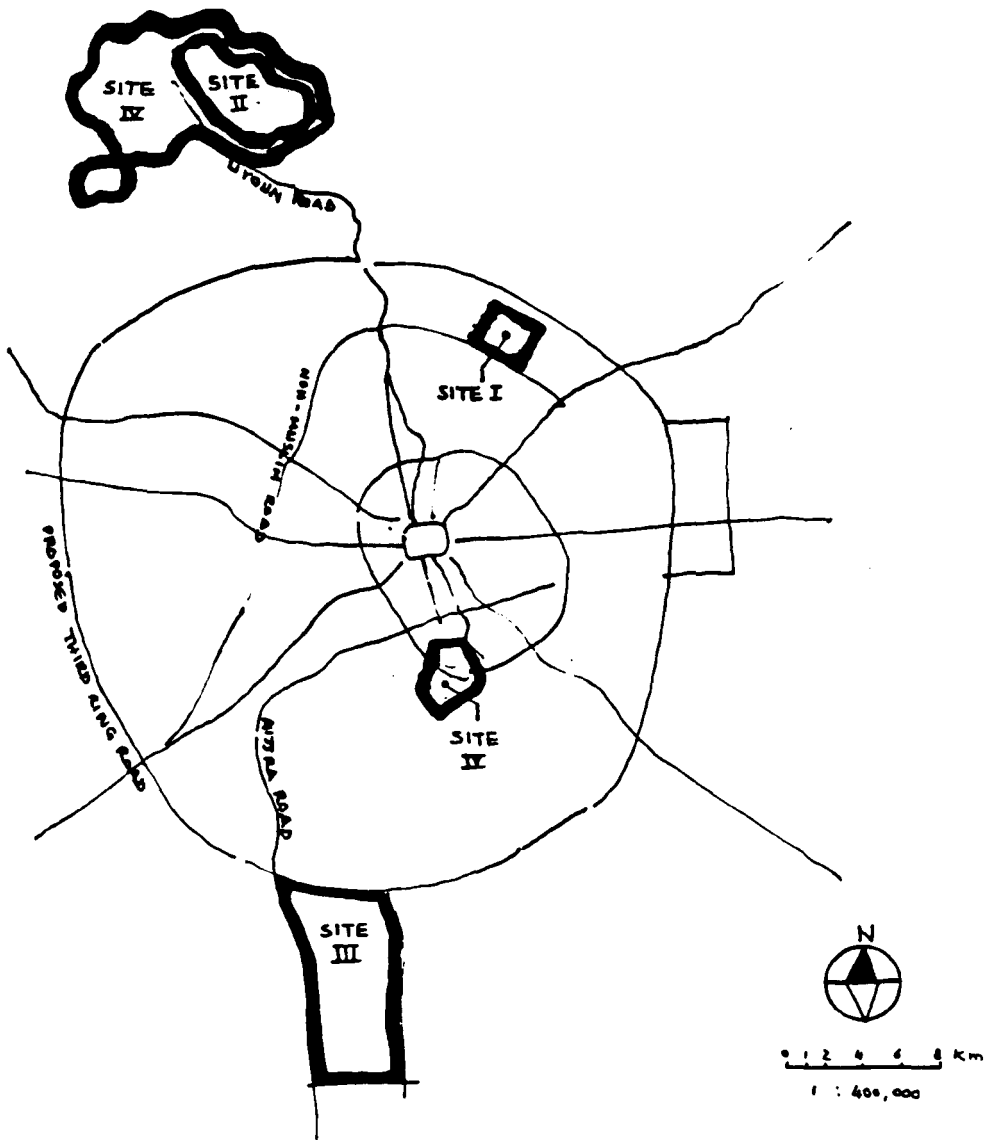


Figure 8.1: The problem of site change in Medina Public Park Project.
 (source: Medina Municipality)

implementation which indicate to the degree of centralization the process of urban management was being operated within.² . But, in regard to the Saudi System of public construction works, which is based on the notion of open competitive tendering aiming for the lowest bidder, the suggestion was rejected. However, during the subsequent years particularly between 1981-1984, several events happened to delay the project. Firstly and the most significant is the land ownership. In fact, the site of the park falls within a large area that is owned by the National Guard Authority which is supposed to make the process easier but on the contrary, the land was granted to a private company which transformed the situation into a complicated one. Concurrently the MAMP project was being carried out and should be taken into account in formulating the land use plan, but the MPP did not appear in the plan, because the problem of getting the land was not solved. In 1983, the Mayor of the Municipality was replaced and a new governor (Prince) for Medina was appointed. The new Mayor decided to transfer the site to another one. According to information from one of the officials in the Municipality the second site selected was in an area called "Aba Adood", which is located about 10 miles from Medina to the north direction along Uyoun Road.

The site indicated by "Site II" in figure (8.1). From a physical point of view, the site is a very wide valley surrounded by mountains. The site is, indeed, an optimum one in regard to its natural potential, in addition to its nearness to the Water Treatment Plant. The site had however, the same problem regarding the land ownership. A bedouin family claimed to be the owner of the land, and appealed to the principality for appropriate compensation. The process of negotiation between the court, the principality, the owner and the Municipality took some time and became complicated enough that led the Municipality to change the location of the park again.

The new site "Site (III)" was selected on the opposite side of the city from the previous ones, beyond the proposed Third Ring Road

² Medina Municipality was, in that time, classified as an "A" level of municipalities which administratively linked directly with the MMRA Minister (See sec.3.2).

along the eastern side of the Hijrah Road (See figure 8.1). And to avoid the previous problem or any other potential difficulties regarding land ownership, the Municipality decided in 1984 to build a fence around the selected site (about 95 hectares). The project of fencing the land was offered for tender in the same year. According to government regulations for public projects the Municipality should announce the project in at least two local newspapers, for open tender (Aitah, 1988). The Municipality sent a copy of the announcement to all the local newspapers as mentioned in an official letter from the Minister of the MMRA. But actually the announcement appeared in some newspapers, which became a base for the financial representative of the financial Ministry to take precaution against the concerned committee's decision in the Municipality, which, actually received 21 bids from local firms and in mid of 1984 opened the envelopes of the offered bids, then approved one of them which officially received the land at the beginning of 1985 to finish the job within a month. The process of solving the bureaucratic problem between the two ministries took about 16 months and needed an intervention from the Central Cabinet³. During this period three claims were raised involving the ownership of three farms that had been set up within the site. Two of them based their claims upon a financial one and loans were approved for them by the Agricultural Bank according to a temporary ownership deeds issued by the same agency. The problem was ended by a royal order, which included compensation to the owners of the farms and a notice to the Agriculture and Water Authority in Medina to consider the regulations of the arable land distribution particularly the items concerned with co-ordination with other concerned governmental authorities. Between 1986 and 1990 the project faced some financial difficulties as the whole country suffered from financial difficulties as mentioned above. Accordingly and because of the priority given to the Medina Entrances Project especially in regard to the Royal will, the financial Ministry requested a transfer of a part of the approved amount of money to the Medina Public Park Project (300 million) to the Medina Entrance Project. But the Municipality was not satisfied with that because of the contracts

³ A letter from the MMRA Minister to the King and the Royal order No. 3138/M/ in 4-10-1404 (1984).

were committed regarding the Park Project from one side; and the inconsistency with the regulation⁴. Recently, the concept of the Park Project has been changed. In fact, two different recreational projects have been approved instead of the single Medina Public Park described so far. One of them is a Wild Park which based in organizing the existing natural potential without making any man-made planting or vegetation. The location is the same site which indicated as "SITE II" in figure (8.1), but in addition to the next eastern land which is an extension in width of the same valley. The other project is a man-made park and located within Quba area in the southern park of Medina. The site includes the largest water reservoir in Medina. It is the wild park location indicated as "SITE IV" in figure (8.1).

It can be concluded from this case that two factors influenced the implementation process of the project. the first is, the land ownership pattern sanctioned by the principle of the Sharia'. The second is, the complicated administrative routine, specially in term of approving the financial support. Given this fact, it can be said that this case support the same propositions that put forward at the macro-level, particularly in the influence of the Sharia' upon the pattern of land ownership and process of acquiring land for personal use, and consequently its influence on the implementation of the MDP as a whole.

8.2 Manakha Tunnel:

This is another micro-level case to be analysed for the same purpose, but it is more relevant to the road network general outlines, though it can be linked to the land use structure as it is one of the land uses.

Historically, before the need for the tunnel was raised, the Manakha was one of the major roads in the Central Area which actually

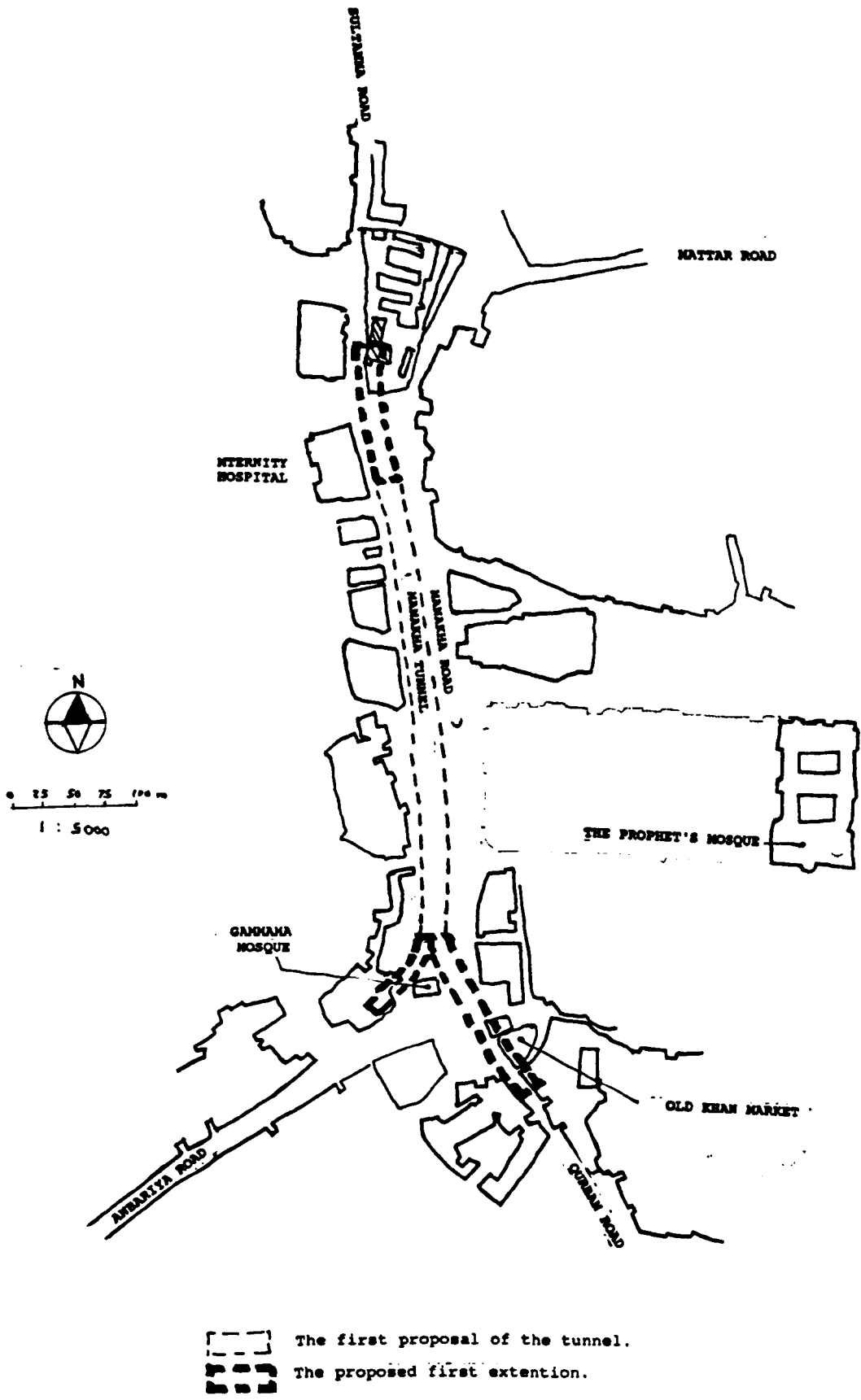
⁴ In fact, the Municipality requested the same thing for another project before but the financial Ministry rejected the demand according to a certain regulation which does not allow the utilization of any financial improvement other than what was approved for.

carried a heavy volume of traffic from north to south as shown in figure (8.2).

In the 1970's while the Matthew Plan was being prepared we have already noted that another study by a British Consultant was being carried out focusing on the traffic pattern and aiming to improve the existing situation. One of the outcomes of these studies was a proposal to develop and improve Manakha Road. By this time the area to the west side of the road became a very populated one especially during the pilgrimage which in turn, led to a conflict between the flow of the pedestrian movement, from Zogag Al Tiaar in the Western Harrah and crossing the Manakha Road toward the Mosque, with the flow of vehicle movement along the road. This phenomenon occurred at least five times daily because most pilgrims and residents in that area aim to perform the five daily prayers in the Mosque. However, it seems from the documents that the idea of the tunnel was raised and discussed in the periodical meeting of the High Committee for City Planning of Medina. The main objective was to separate the pedestrian movement from the vehicular one. Several alternatives were suggested but the conclusion was to construct a tunnel for vehicular movement while the pedestrian movement would remain at ground level.

Figure (8.2) shows the first proposal for the tunnel, which extends from near to the Maternity Hospital up to Gammamah Mosque in the south. This discussion was being held during the MDP formulation, i.e. between 1978 and above. In 1980, the project was approved as an item of the year's budget programme. But the contract was between the MMRA and the Consultant because the municipality was not upgraded to Ammana level yet, which meant more involvement from the ministry in the administrative procedure.

The decision of the tunnel was achieved in addition to soil analysis, by CANSULT limited, but the project was held up in the implementation process because although a sum of money (S.R.60 million) was assigned to it, the sum was less than the lowest tender for implementing the project. The process of making good deficit took much negotiation between the municipality and the Financial





-  The first proposal of the tunnel.
-  The proposed first extension.

Figure 8.2 : The process of Manakha Tunnel development and implementation.
 (source: Medina Municipality)

Ministry and the problem was only solved during 1982 by taking the amount needed from the budget of another project which had not yet started.

In mid 1982 the contract was signed between the contractor and the Municipality and the contractor took possession of the site. In the same year, the Municipality was assigned by the High Committee of Medina Planning (HCMP) to develop a temporary solution for traffic during the process of implementing Manakha Tunnel and Safeiyah Bridge which started in the same time in the same area. This matter complicated the beginning of the project to some extent, because the contractor could not actually take possession of the site until two months later. A similar problem occurred five months after the start when the work was stopped and Manakha Road was opened for traffic movement because of the pilgrimage. During this period a royal order was sanctioned to establish a Ministerial Committee for this purpose⁵ to study the possibility of extending the tunnel from the northern side.

In the beginning of 1983 a Ministerial Meeting was held in the Ministry of Interior which included the Interior Minister, Financial Minister, MMRA Minister, Health Minister, the deputy to the Medina Prince (Governor) and Director of Public Security in Medina. The main conclusion was to establish a sub committee composed of Medina Prince's Deputy, the Director of Public Security and the Mayor of Medina to examine the project in the site and decide the necessity of the extension. However, the Municipality contracted with two firms to implement the project, one for constructing and carrying out the project, and the other to supervise and follow-up the process of implementation. Both firms were national ones. It seems that the establishment of the Ministerial Committee was a consequence of advice from the second contractor to the Municipality because of the heavy involvement of the Ministry of Interior through the local Public Security Directorate in the process and the

⁵ According to the governmental regulation (ACT) of public purchases, a Ministerial Committee should be established whenever a financial problem is raised between the concern agency and the financial Ministry based on the Item NO.12 in the Act.

financial obstacles. The sub committee concluded with the following recommendations:

- a. extending the tunnel from the north up to the King Hospital.
- b. extending the tunnel from the south and connecting it with the outbound lane of Anbariyah Road, and up to Old Khan Market towards Qurban Road as can be seen in figure (8.2).
- c. assigning the study of the extension to the second firm who were responsible for following up of the project implementation process.

The recommendations were approved and the Municipality started with work in the same month. Between 1984-1988 when the project was completed, several problems complicated the process of implementing the project. Firstly, the contractor requested financial support because of the several obstacles made him start late in regard to the agreed schedule.

It took time for this support to be approved and it was only at the beginning of 1984 that the Ministerial Committee finally agreed. Secondly, the process was stopped several times because of the annual pilgrimage. Thirdly, damage was caused to the telephone cables within the site (there were two cables of 100 and 300 capacity) and to some other services because there was no accurate information about service runs on the site. The telephone Authority requested compensation from the Municipality, but the contractor claimed that the damage to his work and the telephone lines was a result caused by another contractor working on the building of a fence for the King Abdullal Azeez Public Library. This contractor broke into a water main which flooded the tunnel and caused the damage to the telephone lines. The investigation took a long time and ended with the contractor being blamed for the damage which frustrated him and affected the quality of the work. Fourthly, as a result of that the contractor reduced the size of the labour force working on the project and held back on several occasions the labour force's wages which affected the effectiveness of the work and lengthened the time span of the implementation. In 1988, the project was handed over by the contractor. In the same time the

HCPM decided to study another extension of the tunnel as an element of improving the traffic network within the Central Area.

The conclusion to be drawn from this study is mainly at the micro level. The technical aspect of the project appeared to dominate its implementation and the failure to resolve technical difficulties added greatly to the time taken to complete the project. And poor communications between the government agencies concerned was apparent. But this can lend weight to the claim that lack of skill in managing the urban planning process was a dominant factor influencing the implementation of the MDP.

8.3 Medina Main Entrance Project (AMEP):

Like the previous case, this one is more relevant to the traffic network, but at the same time can be considered as a micro level of the land use structure proposal. The presentation here will involve identification, conformity then assessment of the factors.

"Main Entrance" means the major vehicle routes linking Medina with other cities and regions and the approach for vehicles into Medina city center.

This project has not been completed yet, but as long as the process of implementation is the concern, this case may give some insight about how things are getting done in terms of developing the city. On the other hand this project is evidence for the influence of the MDP.

However, figure (8.3) shows the physical location and characteristics of the proposed entrances, in addition to the phasing programme of implementation. The Project, in fact, was approved by the King in 1986 (27-2-1406 H) as one of the major development projects in Medina, which are being monitored directly by the Ministerial Committee. It involves three major entrances:

1. The northern entrance along from Tabuk city side, Tabuk Road then Khalid Ibn Walleed Road is 12 km long.

2. The southern entrance from Mecca city side, along Hijjah Road is 18 km long.
3. The eastern entrance from Qaseem area side, along King Abdullal-Azeez Road, is 15 km long.

8.3.1 The Conformity of Medina Entrance Scheme with the MDP's:

Basically, the general outlines of the AMEP were designed according to the main features included in the traffic network which was proposed by the MDP. It can be noted from figure (8.3) that the map was utilized to design the AMEP and does have the main characteristics of the MDP's proposal. For example, the Second Ring Road and most of the secondary routes. However, because the Master Plan of the Road network was developed to some extent as mentioned in section. 7.1 particularly in regard to the connection between the Second ring Road and the Non-Muslim Road in the eastern part, which was cancelled and replaced by the Third Ring Road. This is in addition to the cancellation of the Intermediate Ring Road which is not pointed out in the recent official Map (figure 8.3).

Returning to the AMEP, the Northern Entrance scheme was based on the notion of transferring arrivals from Tabuk Road to the Project Mosque without crossing the city center area. Accordingly, the proposal included, as can be seen in figure (8.3), the extension of Tabuk Road along Khalid Ibn Waleed Road passing through a tunnel in Sila mountain, then the road is linked with the Mattar Road. Furthermore, the proposal of this entrance involved an improvement of the Sultana Road which will transfer the arrivals to the city center. In addition it included specific developments in the inter sections between the route of the entrance and other routes such as the Third Ring Road, Non Muslim Road, Sultana Road, the Second Ring Road and other secondary routes.

The recent proposal for the Northern Entrance, which is being implemented, follows the MDP clearly (see figure 7.2). In particular, the continuation of the entrance route and its link with the Mattar Road tunnel under Sila Mountain . Similarly, the recent

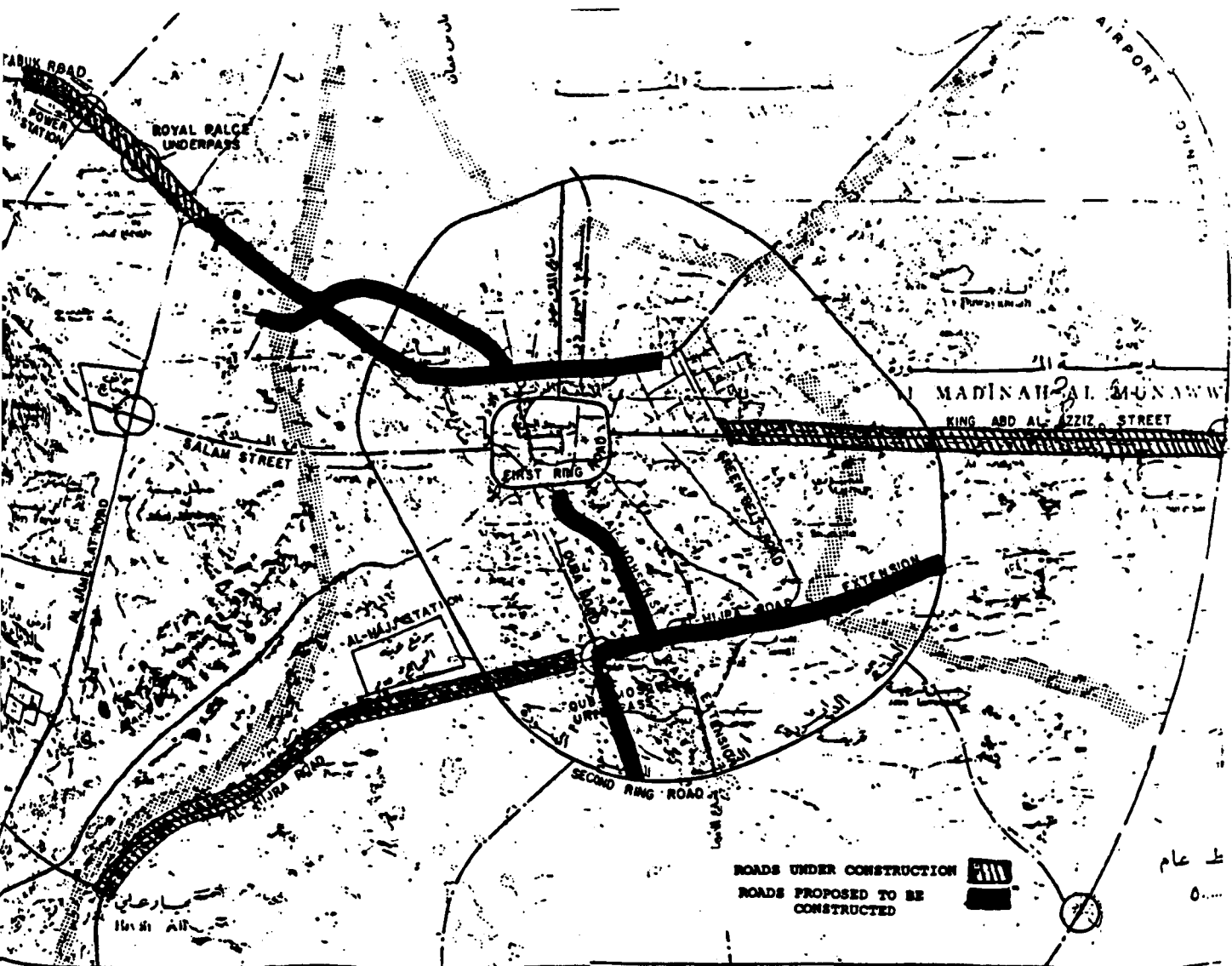


Figure 8.3 : Medina Main Entrances Project.
 (source: Medina Municipality)

proposal for the Southern Entrance, which follows to a great extent the route proposed for Hijjrah Road and its extension across the area inside the Second Ring Road. This entrance was designed as an express route which was supposed to transfer the arrivals from Hijjrah Road coming from Mecca to the city center through Quba Street (see figure 8.3). Hence, although both entrances conform to a great extent to the proposals in the MDP, have not followed the specific technical recommendations in regard to the specific characteristics of each route. For example, the eastern part of Hijjrah Road inside the Second Ring Road was proposed as a secondary route (i.e. 90 meters wide) as shown in figure 8.3, but it was recently approved to be as wide as the road coming from Mecca city (i.e. 60 meters wide), up to the eastern intersection with the Second Ring Road.

The Eastern Entrance, is designed as an express route, too, and its route in the recent proposal followed the MDP up to the intersection with the eastern part of the Second Ring Road, but departs from the MDP beyond that point. The new design involved a straight extension up to the proposed route of the Third Ring Road. In addition, the Eastern Entrance proposal included an implementation of a part of the Third Ring Road between its intersection with the King Abdullal Azeez Road extension (The Eastern Entrance) and with the Mattar Road (see figure 8.3).

8.3.2 Implementation Process of the AMEP:

Historically, the process of implementing the AMEP can be divided into three main periods:

1. The period before making the MDP (i.e. before 1979).
2. The period during and after making the MDP (1979-1990).
3. The recent period (1990 - beyond).

Firstly, the period before making the MDP, unfortunately lacks adequate information either in documentary form or regarding people involved in the process or having knowledge about it. However, it can be said, on the basis of the available documents, that Medina

Municipality representing the MMRA and Road Directory in Medina representing the Transportation Ministry involved in developing the project and implementing the entrances. In fact, in the five year programme for the municipality prepared by the Ministry of Planning there are two projects, one entitled by "The Eastern Entrance Project" and the other one entitled by "The Western Entrance". In addition there is a project under a title of "King Abdullal-Azeez Road Extension up to the Second Ring Road" at a width of 30 meters. These projects are currently in the phase of property expropriation which is the responsibility of the municipality whether the project was directly undertaken by the municipality, or by other governmental agencies. However, three projects were listed among the projects that were implemented by the Road Directory in Medina until 1983. These projects involved "Tabuk Road up to the intersection with western part of the Second ring Road. "Qiblatain Road up to the area of Seven Mosques and, "Hijjah Road up to the western part of the Second Ring Road". All the above projects, in fact, are included in the recent AMCP as components of the project.

Secondly, in the period during and after making process of the MDP up to 1990, several projects relevant to the AMEP, were approved in this period in different phases (i.e. expropriation and compensation process. Medina Municipality approved two projects in 1980 which continues until 1990. One was entitled as "Property expropriation for the Eastern Entrance Project" while the other was "Property expropriation for the Extension of King Abdullal Azeez Road". Both projects actually were transferred from the Second Five Year Plan programme (1975-1980) for Medina to the Third Five Year Plan Programme (1980-1985). Then the projects were assigned to the General Directory for Properties and Land (GDPL) in the municipality to administer them with the coordination between other directories and departments concerned. The GDPL. in fact, estimate the compensations required to reo them to the Mayor, who in turn, reports them to the Ministerial Committee then to the King to be approved.

In 1985-1986, two projects were approved and assigned to a foreign consultant "Barsons Brown International" for design and formulation.

The projects were entitled "The improvement and beautification of Bab-Assalam Road and King Abdullal Road Extension". They were included in the Fourth Five Year Plan and administered by the General Directory for Design and Studies which is one of the main functions of the Amanrah Deputy for Technical Affairs. A representative for the Companies was identified as a liaison officer between the company and the Amanah, from the side of Amanah, a communications engineer was assigned too. The project was supposed to have been completed in 6-10 weeks but it took 12 months because of the process of technical approval both with regard to the urban design basis and to administrative aspects. One of the administrative aspects, as was explained by one of the officials who is in fact an architect, is the need to approve new expropriation requirements based on the outline of the aesthetic design of the street. Specifically, the first phase of the expropriation is usually based on a preliminary estimate which in this case left the physical features of the two sides of the road unconsidered from an urban design point of view. These consequently required beautification. The project approved in the 1985-86 annual budget aimed to fulfil this purpose, but the design that was formulated needed more expropriation which had to go through the same administrative procedure for approval at the level of central government. However, the project was completed for both roads in 1988. In 1986-87 annual budget included a project to improve and beautify the area under and around the grade-separated junction with a flyover, at the intersection of Tabuk Road and the Non-Muslim Road. The grade-separated junction, in fact, was one of the projects which was implemented by the Directorate of Roads in Medina. In addition another project relevant to the AMEP, aimed to improve and widen Sultana Road. However, this interference between Medina Municipality and Director of Roads could be explained by two factors:

- a. The vague geographical boundary for their authorities because principally the Municipality is responsible for developing the roads within the urban boundary while the Directorate of Roads is responsible for roads which fall outside the urban boundary.

- b. In some cases such as Jiddah, Riyadh and Medina, for example, the above principal is partially ignored, where the Directorates of Roads in these cities are involved in developing and establishing some elements of the road network⁶

Hence, in the same year a project was approved and assigned to two contractors to implement it. The project was entitled as "Improvement and Beautification of some Entrances to Medina". One of the two contractors was dismissed while the other who was "Ibn Laden Corporation" continued as the only contractor responsible for implementing the project. This contractor was recommended by another consultant company (Dar Al-Handasah) who was assigned to supervise and follow up the AMEP implementation by the Municipality. And both contractors, in fact, are well known by the government agencies at central and local level not only in Medina but also in the other cities of the kingdom. Which may indicate that the role might be played by the private companies which are concerned with development programmes and projects. For example, Dar Al-Handasah is recently responsible for formulating the regional comprehensive plan of Medina Region as well as supervising the implementation of the Second Ring Road.

Similarly, Ibn Laden is responsible for implementing several projects in Medina belonging to different government agencies, including the Prophet Mosque Enlargement and the Central Area development and improvement. In addition to being a member of most official committees which are responsible for monitoring the developmental projects in Medina such as the MCMD the HCMP and the committee that was established in 1987 by an order of Medina Prince to follow up the implementation process of the development projects which were included in the Royal order that concerned Medina development. This committee consists of the Mayor of Medina Municipality (Amanah) the General Director of local services in the Principality, the Manager of Ibn Laden Corporation in Medina and the Manager of Dar Al-Handasah Corporation in Medina. The committee,

⁶ This fact is based on a statement by the Director of Roads in Medina during his interview as well as the Mayor of Medina Municipality.

moreover, was given an authority to access and review all aspects, files and processes of the relevant projects among all the local concerned governmental subordinates, in addition to the involved private consultants Corporations.

Hence, one of the major projects are followed up by the committee is the AMEP. In fact, this project, although it is one of the committee's concerns, is also one of the projects that was included in the programme of the Municipality's fourth Five Year Plan. In addition, it is financially supported by the Municipality. Consequently, the Municipality established a new function included in the Mayor Office. It was the Office of the sub-committee for the developmental projects of Medina in particular the AMEP. The purpose of the office is to follow-up the involvement of the Municipality in the projects concerned and coordinate with other concerned agencies. Furthermore, the Municipality contracted with Dar Al-Handasah which is a national private consultant to supervise and technically follow up the process of implementation of the AMEP, which is assigned in the same time to Ibn Laden Corporation as mentioned above.

By this stage it can be argued that two procedural patterns appeared in managing the implementation process of the urban developmental project in Medina. The first one can be distinguished as a fragmentary effort not only in subject matter but also in its procedural aspect as some of the AMEP elements were managed by an agency different from the others without coordination. The second pattern was an integrated one, incorporated in one body, the Committee Office for Developmental Projects in Medina (CODPA). This committee, in fact, brought together most of the concerned agencies either public or private in one cabinet to coordinate and follow up the action concerned.

Through this body, which was established in 1987, as mentioned above, the process of AMEP implementation was managed and programmed. The contractors responsible for constructing the project or for supervising the technical aspects of the work and the day-to-day coordination procedures, were assigned to the work

without going through the normal competitive method after an announcement about the project publicly in the local newspaper. This direct method of contract assignment is an exception when the case needed to be performed quickly, in addition to the availability of well known firms with regard to skill and experience not only in the technicalities of the project but also in the administrative and local contextual difficulties and problems.

However, the process of implementing the AMCP was phased according to predetermined priorities in addition to the existence of obstacles which require another preliminary phase. In the technical report of Dar, Al Handasah to the municipality, the process started involving all the three entrances but at different levels and phases of work. While in the minutes of the CODPA, the major emphasis was placed on Hijjrah road (The Southern Entrance). The work was divided into two phases.

1. The part between the intersection of Hijjrah Road with the road that transfers to Al-Miqat Area (technically identified as 2+000 station) and the point 500 meter before Quba Mosque (9+500 station), which are shown in figure(see appendix A-9).
2. The part between 9+500 station up to the intersection of Hijjrah Road with Qurban road(11+000 station). This included building a tunnel in front of Quba Mosque along Hijjrah Road(see appendix A-9).

An obstacle to the first phase was the delay in constructing the bridge over the intersection between Hijjrah road and Second Ring Road, which was supposed to have been finished as part of the complete project for the Second Ring Road by the Directorate of roads in Medina. This obstacle continued as one of the major problems in the implementation process not only of Hijjrah Road but also the other entrances which all intersect with the Second Ring Road. While in the Second phase the major problem was the transfer of utilities lines and pipes (i.e. Telephone, Electricity lines and Water and Sewage pipes) which crossed the route of the tunnel. In addition to minor problems such as some claims from the private

sector of the ownership of some farms and lands were falling across the route of the tunnel. However, the process of implementing the Road and the tunnel according to the phases agreed upon in the meeting of the CODFA was being monitored by the CODPA in the weekly meeting from one side and by the Dar Al-Handasah in regard to the day-to-day activities and actions in the field. It was very evident from the letters between Dar Al-Handasa from one side and the other parties such as Ibn Laden and the Municipality and, other concerned governmental agencies, that there was a flow of communications between these parties. The content of such exchanges covered , with regard to a particular adjustments to the timetable of construction from all of them, and attempts to find solutions to the problems and obstacles that emerged, including the unavailability of a plan for the utilities' lines and pipes and the lack of experience of the contractors who were assigned by other governmental agencies to perform the necessary work. Dar Al-Handasah in addition to coordinating and following up the day-to-day work also offered help to make good any shortcomings for all concerned parties.

Furthermore, in one of the CODPA meetings, particularly during the implementation of the second phase of Hijjrah Road and first phases of the other entrances, a sub-committee was established headed by the General Director of local services in the Principality, to fulfil the branching emerged issues and problems. The committee did have another member from the Municipality and subjects of the meetings included:

1. The issue of property expropriation for King Abdullal-Azeez extension Road.
2. Property expropriation for Sultana Road, as well as the utilities lines intersection with the road.
3. Other issues relevant to other projects.

However this case may supports some some observations made at the macro level, such as the influence and considerable involvement of the private agencies in the planning process, and the interaction

between these agencies and the governmental agencies at the central and local level. In addition ,it can point out here the same argument regarding the fragmented efforts the urban planning machinery work within and the lack of skill which reflected through the considerable dependency upon the private agencies(Ibn Laden Corporation and Dar Al-Handasa,in this project). Moreover,it is apparent that the implementation of the project in the last period and recent work have been and being influenced clearly by the involvement of the central government.

Hence, the MME project shed light,also on another dimension which is relevant to the micro level. These dimension concerns the administrative aspects such as the coordination between Medina Road Directorate and Medina Municipality from one side and other agencies such as the essential utilities' agencies from other side. In addition to the technical affairs (i.e. their nature in term of easy to deal with or not). Finally, the influence of the specific individual projects on each others in an interaction way.For example the implementation of Hijjrah Road depends on the implementation of the Second Ring Road project .On the other hand the same project affected the Low income Housing Project through which the Hijjra Road extends.

PART THREE

CONCLUSION

CHAPTER NINE

UPWARDS CONCLUSIONS

This chapter concerns the insight and knowledge that can be acquired from the cases which were analyzed previously, in order to understand the process of the MDP implementation, as a particular case of the implementation of urban plans in Saudi Arabia urban planning. To understand the nature of the conclusions that may be drawn from the study, it is first necessary to return to questions of methodology. Following this, a model based on upwards conclusions is presented. In addition, the significance of the macro and micro concept in studying urban plans implementation will be highlighted.

9.1 Further Notes in Methodology

The conclusions to be drawn here, may be considered as the "third order" of the abductive mode of obtaining knowledge, where "abduction" is "a tentative process of devising sets of concepts to organize and explain without thereby claiming that these concepts are valid because they have been derived from the facts." (Thomas et al, 1983 p.xx).

Consequently, the aim here is not to build a theory that can be generalized over wide domain of the concerned field because the case study approach, although it is the most appropriate strategy for this kind of study, cannot provide the enough base for building general theory, particularly in this stage of studying a particular phenomena. "Case study is an approach to analysis well suited to the needs of policy analysis, though its potential is limited by the one-off manner in which it is commonly used. This serves only a limited learning role, and does not usually make a contribution to the development of theory." Hence, a case study should provide an excellent starting point to achieve the type of knowledge needed in this stage. This knowledge can provide a foundation to construct, not a general theory, but a model of the kind defined by Willer (1967): "A model is a conceptualization of a group of phenomena, constructed by means of a rationale, where the ultimate purpose is

to furnish the terms and relations, the propositions, of a formal system which, if validated, becomes theory". pp.15 This means that we seek for a first stage knowledge " a knowledge not of already abstracted findings but of the phenomena in their most promotive form". (Willer, 1967: pp.28)

Within the limits of the case study, a certain generalizations are possible. According to Adelman et al (1977): three types of generalizations can be obtained from case studies; "within cases", "between cases" and "upwards cases or from cases". This may allow us to draw the following categorization:

1. Firstly, the generalization "within cases" which implies conclusions about some characteristics, properties and associations were observed by investigating a particular individual case such as the MDP in Medina.
2. Secondly, the generalization "between cases", that may involve conclusions about some characteristics, properties and associations which were acquired by observing two or more than one urban plans of different Saudi cities (such as the Master Plan implementation of Jiddah, Mecca, Riyadh...etc).
3. Thirdly, the generalization "upwards" or "from cases" which intends to establish conclusions from more than one set of cases in different contexts (e.g. the implementation of urban plans in Saudi Arabia, Turkey, Bangladesh, Britain, U.S.A., France...etc).

Furthermore, these types of generalization similarly can be applied when the case under study is of the kind described by Yin (1984) as "an embedded case study". The MDP case (or any comprehensive urban plan) is of this type. It involves as mentioned in Chapter three and four more than one programme and proposal which in turn may include more than one sub-programme and projects. For example the MDP involved general long term out lines such as phasing programme, land use structure and road network (macro-case studies). Each one of them includes short term programmes and projects (micro-case

studies). In the previous three chapters (five, six, seven and eight), the generalizations at the end of each chapter were drawn from "within macro-cases" and micro-cases. In this chapter, the other two types of generalization (between and upwards) will be applied in order to draw the model that may provide first stage explanation and ground for further thorough and in depth research to understand the phenomena concerned, particularly in Saudi Arabia.

The model construction, however, was not only based on the information which was acquired from cases, but also on the qualitative data collected, during the fieldwork, about the urban planning system and process in Medina. In addition the utilization of data and conclusions included reference to some previous studies, particularly, that which concerns urban phenomena in Medina, such as Abdullal (1987) which is the only study focussed directly on Medina case, although it was limited to the land market and ownership phenomena.

9.2 The Model Derived from the Study:

Based on the conclusions within each case of the previous macro and micro cases, and other information, it can be upwardly, concluded by the following image about implementation of the MDP.

The process of implementing urban plans such as the MDP in a context such as Medina, is an element within a whole mechanism which represents the city development and management phenomena.

Figure (9.1) manifests the elements and relations with each other which in total comprise the mechanism of Medina development and management.

Because of the approach we adopted in terms of studying the implementation, which is the top-down approach that is concerned with policy and outcomes, and the degree of conformity; the first step in presenting the mechanism is to examine the outcomes (i.e. the urban physical structure) that was still the principal aim of

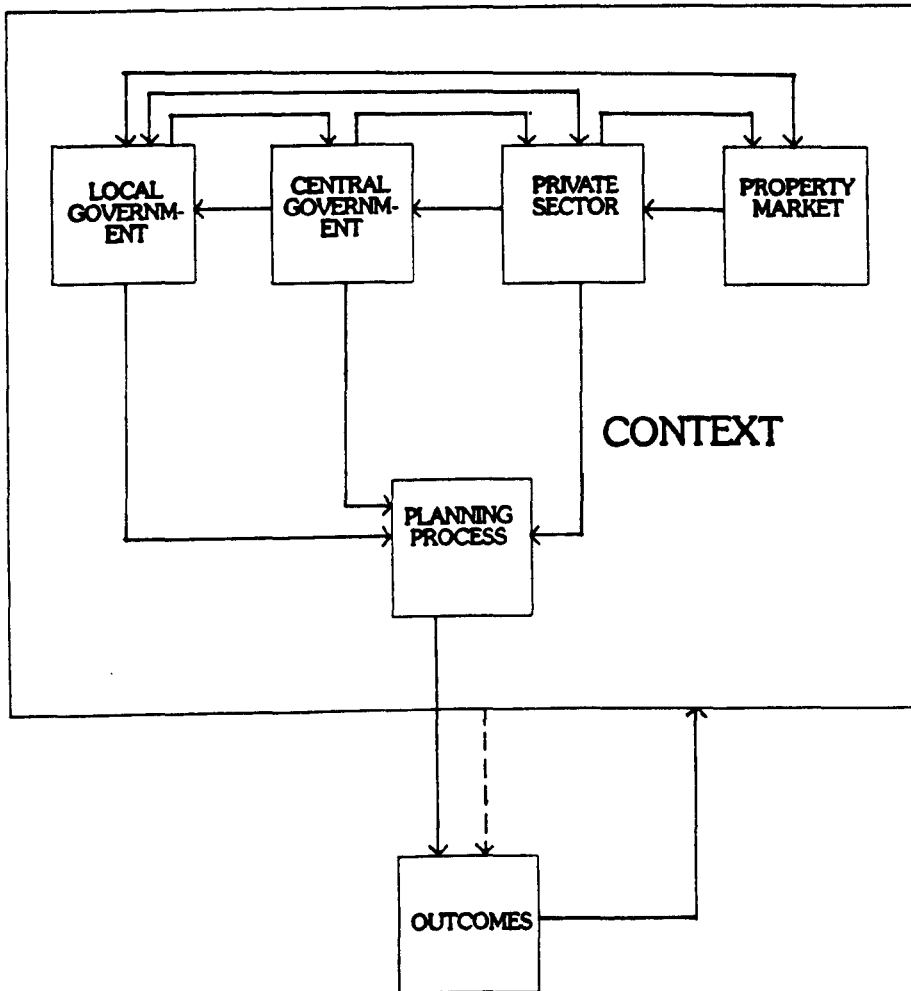


Figure 9.1 : The concluded model.

the urban planning process and system in Saudi Arabia, particularly in Medina. It was evident from the cases that to great extent the actual outcomes did not conform to what was proposed by the MDP, although some elements have been and are being implemented in accordance with the MDP's outlines. In fact, the elements that were not in conformity were mostly the outcomes of the day-to-day activities which are supposed to be controlled by the planning and building laws (the negative power), while most of the elements that did conform were outcomes of public projects and short term programmes, though they were not a considerable percentage.

This leads us to look at the impact of the planning process, on the pattern of outcomes.

9.2.1 The Planning Process:

By planning process we mean here the process of making and designing plans, policies, programmes and projects either in the long term or, in the short term; and of managing their implementation. In Medina's case the planning process is a process that was influenced by two types of planning. The first is socio-economic planning which is reflected at the local level through the operational programmes to be executed by the Ministerial Subordinates in the Medina region and Metropolitan area. Most of the public projects and programmes, in fact, are influenced a great deal by the socio-economic five-year plans, including the municipality's projects and programmes. Each Ministry collects the needs assessment from the local subordinates to draw up a five-year outline which in total becomes the base for the five-year plan. In addition, the local subordinate report an annual need to the central Ministerial offices which in turn adjust them to the five year operational plans, and draw the annual budget programme accordingly. In the fourth five-year plan the annual adjustment of needs became the responsibility of the principality which receives a regional five-year operational plan in order to follow up the local implementation process of the National objectives. Consequently each local Ministerial subordinate is supposed to adjust their annual needs locally through the High Committee for Medina Planning (HCMP) which is headed by the Prince

of Medina, then report that to the Central Ministerial Offices to acquire the annual budget accordingly. In actual fact, some ministerial subordinates report their needs and annual frameworks not to the central offices directly but through a regional office, which created particular difficulties for the HCMP in coordinating activities. It is very probable that the administrative routine, especially when there are more than two levels in the hierarchy, particularly when coupled to the possible lack of experience, is the principal factor in delaying the adjustment of regional needs.

The second type of planning concerns physical and spatial changes. The principal medium for this kind of planning is comprehensive urban plans such as the MDP. But in Medina, several other long term physical plans appeared during the last ten years, as a reference for some governmental agencies in their short term and day-to-day activities. These included the Master Plan for the water supply network which was made in 1976 to be a long term framework up to 1996. Thus there was probably another long term physical framework influencing the decisions within the governmental agencies, especially those concerned with public services, such as Electricity, Telephone, Health, Education etc. The MDP did, however, base its strategy on these frameworks and outlines, and took the projects and programmes which were included in the third five-year plan and the long term framework of the water network. But, unfortunately, many of the annual short term plans and projects are made sometimes according to the existing and emerging conditions which render the long term frameworks and plans obsolete.

The plan making process itself represented one of the major factors influencing the implementation of the plan. This process took about four years and has accompanied by poor co-ordination between the bodies responsible for facilitating the negative and positive powers and the body responsible for making the plan. In fact, one of the unique characteristics that distinguishes the Medina case from other cases, is the religious significance of the city. This resulted in the non-muslim, foreign experts required to prepare the plan living and working either in other cities such as Jiddah (in the Matthew Plan) or outside the religious boundary of the city.

In addition, the contents of the Plan, distinguishes between long term and short term proposals and programmes which, relate to the activity of different independent public agencies. This in turn means numerous factors in the implementation process. The Plan maker assumed or recommended a particular mechanism to cope with this situation administratively (see sec. 3.4.2.7) but the machinery remained very much as it had been with slight improvements. Although there was co-ordination through the HCMP, it was to implement on-going short-term and specific projects, but not to effectuate the MDP. Moreover, the legal tools, instead of facilitating the MDP implementation, were unintegrated, fragmented and inconsistent and were sanctioned to serve the subsequent emerged situations and solve the pressure created by the private sector.

However, although there were some study projects such as the replanning squatter areas and the Urban Boundary Project which indicate the existence of a monitoring of activities, this effort did not entirely stem from the particular machinery which was recommended by the MDP to create a continuous planning process rather than an end state procedure. Instead, the Urban Boundary Project and, moreover, the recent projects which concern making a regional comprehensive plan including a review and evaluation of the MDP reflect the achievement of the MMRA central objective and strategy for spatial and physical development all over the country as described in section 2.3 This quality of managing the planning process due to the lack of skills and experience and absence of the appropriate administrative structure, although there was a high administrative capacity represented by the HCMP and the Ministerial Committee for Medina Development. Furthermore, the work of monitoring, was not only hindered by lack of experience but also by the poor state of the information systems. Most renewal projects such as the Replanning of the Squatters Area and Central Area. Improvement needed a complete land use survey because no information now actually available about the pattern of land uses although the building permits process does include a survey which means each building is supposed to have a map record clarifying the location of the plot size and other features of the land. For this reason a

continuous process of plan making, implementing and accordingly evaluating and updating the plan, is rendered extremely difficult.

9.2.2 Actors Involved in the Planning Process

It was evident from the cases that both public and private agencies were involved in the planning process either in making plans and programmes or implementing them. In making the MDP, the MMRA Deputy for town planning was responsible for supervising and following up the process of making the plan, while technically the process was assigned to a national private consultant (GACDAR). Similarly, in the case of the previous Master Plan (Matthew Plan) the project was supervised administratively by a central office of the Ministry of Interior, while the technical matters were appointed to a private international firm (RMJH). The central authorities have continued to be involved in the process directly by following up local activities such as the process of making the two Master Plans in Medina, reviewing and approving the Urban Boundary Projects outputs, thus influencing indirectly the local decisions regarding permission for land subdivision and land supply. In addition, the Central Government was directly involved in developing Medina through the Ministerial Committee for Medina Development which is monitored by the king directly. Moreover, as was mentioned before, most of the local ministerial subordinates execute plans and policies which are drawn in the top central level of each ministry. However, the local authorities was and still is involved in the process of planning, since all the directors of the local public agencies are members in the HCMP. So, practically they become implicated in assessing and making the adjustment of local needs in the day to day activities and annually with five year plans and supposed to be with the long term physical plan such as the MDP. It was very apparent from the analysis of the previous cases that the local authorities were involved in making and implementing plans, programmes and projects, through the HCMP as an integrated co-ordination mechanism or through particular committees which were established to deal with a particular issue or solve a specific problem.

Role of the Municipality

The municipality does, in fact, have the power to control the land development process through the building and planning laws and regulations. In addition to the authority was given to the municipality to distribute public land and expropriate private land. Moreover, the municipality is one of the major participants in the MCMD and the HCMP which gives her the opportunity to co-ordinate with other public agencies in using collectively and corporatively government programmes and projects to facilitate implementation of the MDP.

However, we may conclude from the study of the cases that because the MDP has not been officially approved, and thus had no legal status, an inconsistent and incompatible control system was being utilized which considerably influenced the physical outcomes. In addition to the weak involvement in the actual process of making the MDP which as mentioned before took about four years to be completed and was directly supervised by the central office of the MMRA. During this period the public expenditure on development projects reached its peak, and the only physical guidelines were the available control system which included an item that bases and refers any intention to develop land to the Master Plan which was actually in the process of review and reformulation. Moreover, the lack of skill and experience in managing the co-ordination, communication, and implementation was a phenomenon not only with technical participants but also with the top managers and decision takers, which in turn influenced the efficiency of public agencies, particularly the planning machinery, in using the available supported public projects to direct the urban development process in accordance with the MDP outlines.

Role of the private firms:

The intensity of private firms involvement in the planning process as a whole is further evidence of the public agencies' inability to manage the process from their own resources and machineries. From the case studies, the need for private involvement was clearly

identified and accordingly, most of the large and small public projects, programmes and plans were assigned to implementation by private firms. Moreover, in some cases even the process of following up and monitoring the process of implementation was performed by a private firm. This was the case with the implementation of Manakha Tunnel and Main Entrances of Medina. This means that the influence of private firms was mostly positive. On the other hand, the local authorities to a great extent played the role of co-ordinating agent between Central Government and the private companies. In some cases the private company did have an access to the central government directly and authorities such as Ibn Laden who had many public projects since the 1960's, particularly in Medina and Mecca and generally in the Western Region and accordingly gained credibility among the public agencies in addition to the experience of managing governmental projects and programmes implementation within the Saudi governmental context, to the extent that enabled the company to provide, sometimes and in some situations, an advice to the local authority in administering and managing their machineries regarding the governmental regulative framework. However, and surprisingly, most of the municipality's and Road Directorate's project's which were assigned to private firms were implemented in accordance with the MDP outlines, probably because most of the private firms based their plan making and projects, designs, rationally on the available framework and information such as the MDP framework.

Furthermore, in Medina case, the involvement of private firms in the process of planning was such that the municipality contracted with a particular private firm (Ahmad Farced Mustafa Office for Planning and Architectural Consultants) to work as one of its department. The firm was assigned to make several planning and architectural studies and designs, including the Urban Boundary Project for Medina Metropolitan. The reason for that action, by the municipality, as stated by one of the officials was the need for experts and skilled planners in urban and regional planning, but there was no choice to hire more employees, in that period. In the same time there was an opportunity within the expenditure for projects' section in the financial budgeting programme to hire a firm which can play the same role.

9.2.3 Interaction between actors:

In the previous sections the discussion has focused on the direct influences from the actors on the characteristics of the activities which comprise the planning process, which in turn produced the actual physical outcomes in the urban environment. In addition, the discussion highlighted the role of the actors' characteristics which, in fact, formed their influence on the planning process.

In this section, the focus will be on the indirect influence on the planning process and then, as a result, on the produced physical outcomes. This influence actually are generated as was observed in the cases, through the interaction and associations between actors. Furthermore, this phenomenon (i.e. the indirect influence on the planning process as a result of the interaction between the actors) involves another element rather than the actors which is the property market, in particular, the land market.

We have already seen how, in the interaction between central and local authorities, most local subordinates assess their own needs and report them to the central ministerial offices. By this means they adjust them to the five year plans and put them in the annual budget programmes, in addition to providing direction and advice for experts as most of the ministerial offices do have experts for technical consultation. Reciprocally, the central authorities represented by the central ministerial offices and the Council of Minister draw-up the regulations and the strategic policies which bound and influence the local activities and operations, directly and indirectly. For example the central government approved the Real Estate Development Fund (RGDF) scheme which consequently influenced the behavior of land owners in developing their land, and people who did not have land to get land in order to acquire the REDF, which in turn raised the pressure on the central government because many people applied for land subsidy. As a result the central government demanded from the municipality through the MMRA to fulfil the people applications for land subsidy. The municipality then implemented many land sub divisions for this purpose. A large supply of land for development was put onto the market by this means. The land market

as a result the economic boom, and consequently the phenomenal growth in population, became very active because the demand for land for public projects. This in turn led some land owners to subdivide their land and make it available on the market, while at the same time it invoked others to retain their land in the hope of greater speculative gain. In addition, the behavior of the land market was considerably influenced by the existence of the Prophet's Mosque in the heart of the city, and, moreover, the government's intention to expand and enlarge the mosque which consequently raised the land value within the central area and increased the speculation in land. Both these factors decreased the land availability for development for both public and private projects. As a result the municipality and other government agencies selected lands that fell within their ownership even if they were outside or deviated from the MDP proposals

Another example of the interaction between actors comes at the moment that the local authorities start preparing land for development. During the night some people establish some kind of basic building or farm, and then claim land ownership in the court and get the deed which enables them to ask for compensation. Sometimes if they do not accomplish their objectives locally they appeal to the central government even to the King who will require the local authorities to solve the problem and will sometimes sign an order to imply compensation for them. This consequently forces the local authorities concerned with that project to change the site. The case of the public park of Medina is a good example of this process. A further example, in Manakha Tunnel Project, after the work started the private company who was responsible for following up the implementation process realized that it was better to change the design and extend the length of the tunnel. The firm informed the Municipality; the Municipality presented that to the committee which was supervised by the central authority. At last the suggestion was approved. In the case of Ibn Laden involvement as a private firm, the company was frustrated by the administrative routine in the municipality especially with regard to financial matters. As a result and because the firm has access to the central government, the firm asked for direct contact with the Ministry of

Finance, the Central Government approved that, which in turn changed the position of the firm in terms of facilitating the implementation process of especially the Central Area Project, from one side, and the relationship between the firm and the municipality, from the other side.

9.2.4 The Context

The context in the model implies the political, social and economic structure of the country in general and of the city in particular. Moreover, the context involves the psycho-cultural pattern which means the perception, attitude and values, that people either involve directly in the planning process or in the development process of the city as a whole, do have against and about the urban plans and planning process.

It was apparent that the land market and owners' behavior in Medina, is a consequence of the national economic structure and the urbanization that results from it. It can also be argued that most of the administrative developments particularly the planning machinery improvements were a response to the economic growth and its consequences. These will continue influencing local and central activities.

The political context is evident in the pattern of the state intervention which reflected an authoritarian pattern of the political process particularly in terms of people's involvement in the planning. Several public programmes and projects were implemented without the participation of those people most concerned. However, land market behavior has been the dominant influence on the pattern of land development because a free market economy was adopted by the government.

The social context, is particularly evident in the notion of control. Its basic concepts stem from two sources. The first source arrives from the religious principals which are a dominant influence on the behavior of people. The effects of this influence are felt particularly in the institutional translation of religious precept

as for example in the court system and the appeal grievance board. This phenomenon is evident in the squatter and public land infringement problem. The second source comes through the government laws and regulations which have three levels of strength. The Decrees of the King and of the Council of Minister, the Ministerial Regulations and Statutes, and the Local Regulations and Directions. This source does not have the power and credibility of the former. In principle it is supposed to be based on precept, but in practice regulations may well be in conflict with religious and in these circumstances people tend to support religion against government authority, particularly when, as in the case of squatter development, it is in their self-interest to do so.

Lastly, the psycho-cultural context which in addition to the above contextual factors influenced directly the planning process and accordingly the physical outcomes. The planning process particularly in the plan making or its content influenced considerably by the economic structure, and the religious principals. In addition, the implementation process was influenced to some extent by the fluctuation in the national revenue and accordingly the annual financial flow that supports public projects. Moreover, in the Medina case because of the city's religious significance and accordingly its importance to the Islamic World, the administrative capacity that concerns the city's development is strengthened by the involvement of the Central Government directly in the local operation and activities.

Furthermore, the way in which the planning process is perceived particularly, by those people who undertook squatter development and public land infringements, as a valid and means to protect both individual interests was probably one of the main factors influencing the physical outcomes. Similarly, the perception of officials in the government agencies is based on their scant knowledge of the planning process and the MDP. As a result, they neither knew or cared about the MDP proposals, which in turn resulted in some projects never going through the control system within the planning process at all. Moreover, the negative attitude of the officials in the municipality and the HCMP toward the MDP,

led to the Plan having little or no influence in terms of directing day to day activities or in improving the quality of the government short-term actions concerning development projects in Medina.

9.2.5 The feed back influence of the physical outcomes produced:

Although this element was not included within the focus of the present study, it can be argued according to observations from the cases, the resulting physical outcomes do have an influence upon the other elements of the model. Examples include the impact on the land market of public projects such as the Second or Third Ring Road, or the Prophet's Mosque, whose enlargement increased the vitality of the area and consequently land values. Furthermore, the physical outcomes influenced to some extent the extent to which central and local authorities kept to the agreed frameworks or not. Thus the Water Authority's decisions regarding the water network plan changed as a result of inconsistent action from the municipality and the Road Directorate as the Water Network lines follow in great extent the road and street routes.

The same phenomenon was apparent regarding the behavior of the central government, the private sector and the planning process activities.

In sum, it can be argued that the physical outcomes in Medina land development has been and being influenced in great deal with mechanisms of the planning process itself, the involvement and role of public and private sectors in the planning process, the interaction between them from one side and between them and the land market from another side, and lastly the context that the whole phenomena has been and being occurred and operated within.

9.3 The macro and micro concept in studying the urban plans implementation:

As we have seen this study was involved case studies at both macro and micro levels. we saw that there was a relationship between

characteristics of each level even is each level has its own distinctive features. However, the micro-level of analysis approved the usefulness of its analysis in supporting the macro explanations, in addition to generating another explanation which cannot be observed except in the micro-level. Figure(9.2) clarifies this argument.

The macro-cases and level of analysis:

This unit of analysis involves the components of the urban plan. Firstly the macro-level represented by the long term general programmes such as the phasing programme, the land use structure and the traffic network which were selected for the purpose of the present study. These three programmes were apparently useful in observing the phenomenon of urban plan implementation taking into account the generality and comprehensiveness of the Plan in respect to the size of physical area and land uses it covers. The time scale which is used as a long range one. The three selected programmes did have, as examples of general and long range programmes, the validity to verify and generate theories that cannot be analyzed except in this level which we consider it as a macro level of analysis. In fact, it was clear that the phasing programme was useful in observing the degree of conformity of different urban developments including the development of the essential utilities in the city as a whole and accordingly examining the factors that were associated with the pattern of the produced physical outcomes at the same level. The same is true for, the general land use structure and the traffic network. All the three programmes, in fact, do have their own properties and characteristics which are associated with the city's needs as a whole. For example, the economic efficiency in developing the essential utilities and their usefulness in directing urban growth and development, and the efficiency of the legal tools in facilitating the implementation of the general strategies proposed by the Plan for the city needs and requirements as a whole, such as the strategy of the city's physical form and the strategy of the city's vehicle movements and circulation, in addition to the general hierarchical allocation of the various land uses overall the city.

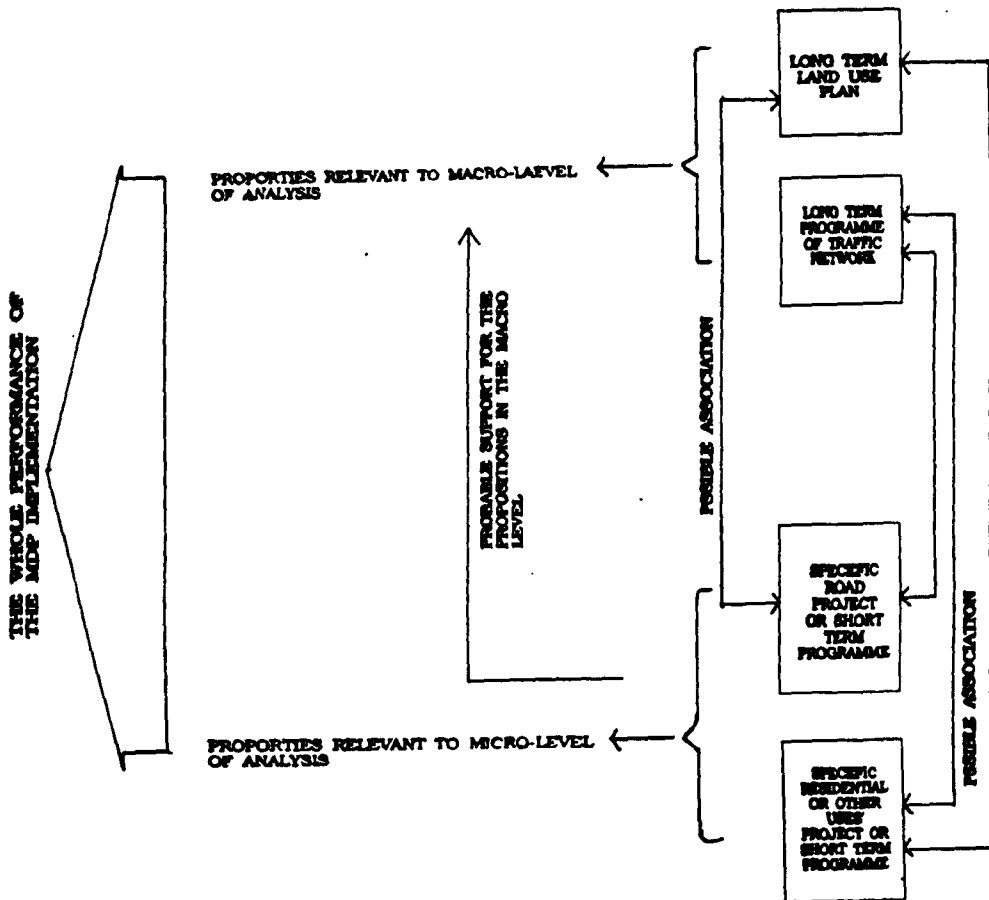


Figure 9.2 : The relationship between the macro and micro level of analysis in studying urban plan implementation

The three macro cases were apparently helpful in observing and discovering the mechanism that may explain why the MDP was implemented as it was done. They were useful in observing the land market, discovering the main actors involved in the planning process in general term (i.e. in making the MDP, implementing and reviewing and monitoring the MDP performance), and examining the relationship between these elements from one side and their association and influence upon the physical outcomes from other side. Figure 9.2 clarifies that this level has its own properties which can be highlighted here, based on the findings of the present study provide to some extent wider insight about the implementation of urban plans in Saudi Arabia, at the level of the city as a whole.

The micro-cases and level of analysis:

At this level the present study focused on specific projects, which were implemented and are being implemented by the Municipality. However it can be pointed out that these projects can represent all projects of this level either were implemented by other public agencies or by the private sector, in the sense that all are elements in a whole composition of relationships and interactions which lead to the final whole performance of urban plans implementation phenomenon.

For example, the case of Medina Public Park (MPP) project, had an influence in some degree on the final whole land use structure of the city. In fact the MPP site was changed several times and finally had a site which is not in harmony with what was proposed by the MDP. In addition, the study of this project was useful in supporting the verification of the hypotheses concerned with the landownership pattern and process in the land market phenomenon as an element at the macro level. Hence, this project at the same time provided an insight about another dimension relate to managerial processes including the administrative routine and hierarchical interaction and intersections. The same properties were discovered in the Manakha Tunnel (MT) and Medina Main Entrances (MME) projects. From MT and MME; another dimension, regarding the implementation process, were observed and highlighted, such as the technical difficulties, due to

lack of information, skill and experience and complexity of the projects' objectives. These properties, in fact, cannot be observed except at this level of analysis. This level of analysis as shown in figure 9.2, influence the whole performance of urban plan implementation. For example the delay in implementing and completing the MT will definitely affect on the whole performance of the traffic network particularly inside the Central Area, which in turn, will influence the performance of the other general elements of the MDP, such as the land use structure.

At this level of analysis the interaction between public agencies and private sectors can be investigated and, namely the involvement of private companies in the process of designed, implementation as was observed in the case of MT and MME, where the private agencies were the principal actors in the planning processes.

The large short term projects (LSTP):

The LSTP here involves the renewal, replanning and developmental projects such as the Central Area Development Project, the Replanning of the Squatter Areas, and the Improvement of Quba, Qiblatain, Miqat and Sayed Ashohada area and the like.

In the present study the case selected, was the Western Harrah Action Area. The project was aiming those proposed by the MDP, that as a consequence of rapid growth and development, the planning machinery failed to ensure that MDP's proposals for Western Harrah were adopted. Because of that; it was helpful in studying the specific features of the general structure of land use, such as land use and densities allocations and, in addition to the hierarchy of the urban units and the availability of public services and facilities.

This case was useful in supporting the propositions considered at the macro level, such as the influence of the land ownership pattern and process in the physical outcomes, and in studying the effectiveness of the planning machinery to deal with the rapid growth and development in the process of controlling and directing

the urban growth and development, particularly in dealing with the phenomenon of public land infringement.

Moreover, this type of projects potential to be very useful in observing the dynamic of the managerial and administrative processes of planning, particularly, the implementation process. Specially when the project is considered as an individual project, which has its own frameworks (i.e. financial, administrative framework, and time table that draws a clear stages of implementational activities). Of this type is, the Central Area Development Project, which is being implemented recently.

However, this type of project may considered as an intermediate level of analysis between the macro and the micro levels of analysis, although it is closer to the micro-level, as it is essentially short term. But they can provide strong support for the macro level propositions, in addition to generating.

The interaction between components of the urban plan content:

The interaction here means the possible associations and reciprocal effects between components of the Plan either between macro-macro, micro-micro, or macro-micro levels, which is one of the major elements in figure 9.1. The argument is that physical outcomes do have a feedback influence on the actors involved in the planning and land development process.

At the macro-level the association can be seen, for example, in the effects of not respecting the phasing programme, on the other general long term programmes, such as the land use structure, particularly, in implementing the landsubdivisions. Similarly the outcomes of the essential utilities network development were influenced by the pattern of urban development and growth, in addition to the influence of the traffic network developments upon them.

This interaction can be observed yet again at the micro-level in a project, such as the Medina Main Entrances the implementation of which affected the implementation of the Second Ring Road, particularly at the intersection points. However, the same project was affected positively in its implementation by the implementation of the Central Area project, because the main entrances were considered as one of the major elements in the Central Area Development project. Another example for the interaction at this level, is the negative effects on the Low-income Housing project (LHP), which lies along the constructed stretch of the Intermediate Ring Road in the eastern part of Medina. By changing the width and route of the Hijrah Road which pass through the LHP, the whole project had to be redesigned.

Furthermore, interaction between elements of the Plan may appear between elements at the macro-level and other elements in the micro level, whether the elements are of the same or of the different types or. For example, in the case of similar types, the land subdivision activities individually influenced the implementation of the general land use structure. The same claim can be said in regard to the Medina Public Park project. The land subdivision which is an element of the land use structure influenced the implementation of the Third Ring Road, which is belong to the traffic network.

However, the process of studying the urban plans implementation should consider the previous dimensions to get more relevant insight, because as shown in figure 9.2, it can be argued that the whole performance of the urban plan implementation is actually a result of studying all elements and components or what can represent them, taking into account the possible interaction and association between these elements as mentioned above.

CHAPTER TEN

RECOMMENDATIONS AND FURTHER RESEARCH

This chapter makes recommendations for urban planning practice that can be drawn from the case study and proposes further implementation of research to extend the understanding about the urban planning plans.

10.1 Recommendations for Urban Planning Practice in Medina:

The information which was gathered in from the present research is not enough to recommend any changes or development comprehensively, regarding urban planning practice, because action of this type needs to be based on more theoretical construction and understanding about the phenomenon of urban planning, particularly in a context such as that of Saudi Arabia.

However, general recommendations can be highlighted here based on the primary information and the model derived from the present study.

These basic observations concern the MDP implementation process, and were apparent as weak points in the process:

- a. Firstly, the control system, which is the power available to the municipality in the implementation of the MDP. Hence, this power has not included the particular legal frameworks which were proposed by the MDP as a specific compatible legal tool and mechanisms aimed to facilitate the MDP implementation. Moreover, the available, legal framework, as was made clear through the analysis of the case studies is neither integrated nor consistent, nor is it organised in a way that is precise and easy enough to be utilized effectively. If this was one side of the coin, the other concerns the validity of this system as a means of social control which implies an attempt to achieve compliance, coercion and commitment to society's values and principals.

This issue appeared through the relationship between the court as a representative of the Islamic Sharia practice and system of control, the municipality as a representative of the urban planning practice and a particular type and system of control and people who it is assumed will refer to and comply with these systems of control. Two phenomena appeared as a result of this relationship. One was the phenomenon of land revival "Ihia" which was considered as a public land infringement according to the central governmental regulations while it was taken to be legal action according to the principals of the Sharia. In addition, the court in cases did not consider the official maps by the municipality as a valid consideration in making its judgement. These two phenomena raise the question if the validity of urban plans as official documents involving, as for example was proposed in the MDP, a legal framework. Can in other words these legal tools succeed in working as a means of social control. Is land use planning valid intervention by the state aim in the indirect and direct control of the use and development of land in the light of the Islamic Sharia? Although, the answer to these questions needs more field and legal studies, it can be argued, based on the practice in Medina, that this intervention from the state needs legal support and validation to play an effective role as a social control not only from one source, i.e. the approval by the king or the Council of Minister but also from the institutions that represent the Islamic Sharia, because although the former source of legality does influence public activities and actions to some extent, it may lose a great deal of validity if it is opposed by the representatives of the Sharia in society (i.e. the court or Ulama who are specialists and scholars in Sharia').

Consequently, the first recommendation to deal with this issue is to ensure that the urban planning control system is not only based on secular concepts of legality but also on the principals of the Sharia', particularly in the actions that involve an element of compulsion and intervention in individuals rights and freedoms. For example, in Medina

practice of urban planning, one of the major factors that influenced land values price and led to development not in conformity with the MDP was the land speculation by some private land owners especially within the Second Ring Road and the Central Area. Can the state intervene and compel them to develop their land or offer them on the open market? Other examples involve the question of whether the state has the right to force people to use their land and properties in accordance with the MDP's policies. If a landowner wants to develop his land and establish a factory while his land falls within a residential area, does the state have the right to compel him not to do so?

Improving the validity of the urban planning central system can be achieved through a thorough study of basic legal practices and principals and discussed them collectively at a conference involving specialists in the Sharia', and practitioners in land development and management and in legal practice. The findings should be published to raise the general awareness of the issues.

The second step is to develop the perception and raise the consciousness of the actors involved in the urban planning and land development process, in particular the institutions that represent the Islamic Sharia' such as the courts. This development of perception and consciousness may be achieved by establishing departments or local courts that specialize in land management and development issues, particularly, those that concern land ownership, use, development and planning. Moreover, this raises the importance of discussing the Sharia, especially in this scope, as a component of the urban planning educational curricula. At the same time urban planning and land development should be a component of the educational curricula of the Sharia.

- b. Secondly, public projects, which, although they are considered as another effective means of directing and influencing the activities of land development, were actually used in Medina

in a way that did not support the MDP policies. This consequently raises the significance of developing and improving the perception, regarding the urban planning process and urban plans, of the practitioners and participants in the process from the governmental agencies, whether they are decision makers (i.e. people who involve in analyzing data and consequently preparing the alternatives for the issue or problem) or takers (people who involve in determining and approving the optimum alternative). In particular, the municipality, despite the co-ordinating channels available, had little influence upon the decisions and were takers regarding the land development by the public authorities. This raises the question about the ability of the practitioners in the municipality to communicate, negotiate and persuade others to comply with what was envisaged by the MDP as well as their need to raise consciousness about the MDP as part of a continuous process of urban planning.

The following recommendations may be useful:

1. Development of the co-ordination department by training the employees of this department and improving their knowledge and perception of the MDP, the planning process, negotiation and persuasion skills.
2. Training technical employees, in the government agencies, who are involved in the plan, programme and policy making and implementation. The training programmes should focus on cultivating the perception and consciousness of the employees in the urban plans and particularly the Master Plan of Medina, and the mechanism of the urban planning and land development processes.
3. Improvement of the other public agencies' participation in the urban planning process especially in the Master Plan making and evaluation and implementation process. This in turn may raise the importance of establishing a

co-ordination channel, other than the HCMP, for the technical level which is responsible for making the decisions for the HCMP and the HCMD.

4. Programming the annual and five year budgets in a collective and corporate way which involves all local government needs and projects, and establishing a special committee which may be linked with the HCMP to take care of the budget. This committee should have members skilled in formulating a city development budgeting programme. Figure (10.1) shows the administrative relationship between the bodies that are involved in the urban planning process, and the position of both the technical co-ordinative committee (TCC) and city development budgeting programme committee (CDBPC). The mechanism works as follows:

The municipality supervises the Master Urban Plan making monitoring, evaluation and implementation process with participation of the technical employees of other public agencies through the TCC. The CDBPC within co-ordination with the TCC and HCMP draw-up and formulate the annual and five year budget programmes according to the objectives and outlines of both the five year plan and Master Urban Plan. Then the HCMP report that to the HCMD to have the final approval and legal support.

- c. Thirdly, the separation between the components of the urban planning process and the interference in supervising it between the central level and local level of the government authorities. Where the MDP, in fact, was made under the supervision of the Department Ministry for Town Planning with poor co-ordination between the private company which was responsible for formulating the Plan at the local level and the municipality particularly in the ongoing day-to-day activities or urban planning process. Thus the improvements of the urban developmental projects which were supposed to facilitate the implementation of the MDP, but because of the

poor co-ordination between the authorities concerned and the lack of skills of the participants in the technical matters of the urban planning process, MDP policies were not translated into practice. The the monitoring and evaluation of the MDP implementation, was very primitive in its nature and was not effective enough to keep the validity of the Plan's content and preserve it from becoming obsolete. In fact, the first attempt was a response to a problem of the squatter development which appeared rapidly and spread over several areas in Medina. It was started at the right time according to the MDO recommendations (in 1985 which was the beginning of formulating the fourth National Development Plan). The second evaluative action was in 1986 and was included within a national project which was linked with the National strategy and phases of spatial and physical development. The project was the Urban Boundary Project. The third attempt to evaluate the MDP has been undertaken recently within a project which aims to formulate a comprehensive physical plan for Medina Administrative Region. This attempt is a consequence of the national framework for the spatial development all over the country (see sec. 2.4).

The recommendations here are inevitably very general but stem from the conclusions of the present study particularly with regard to the dynamics of the urban planning process. More detailed recommendations would depend on further studies and research work.

Recently, the municipality has been supervising a project that aims to make a comprehensive regional physical plan. This process included a considerable involvement of some planners of the municipality as liaison between the private company and the municipality and to some extent the involvement of other officials in the municipality, which in turn may qualify the participants from the municipality to supervise the urban planning process in the future. To be on the safe side, especially because most of these involved in the recent plan making process are very busy in the day-to-day activities of the municipality. It may be better to have this private company, which is making the plan, contract with the

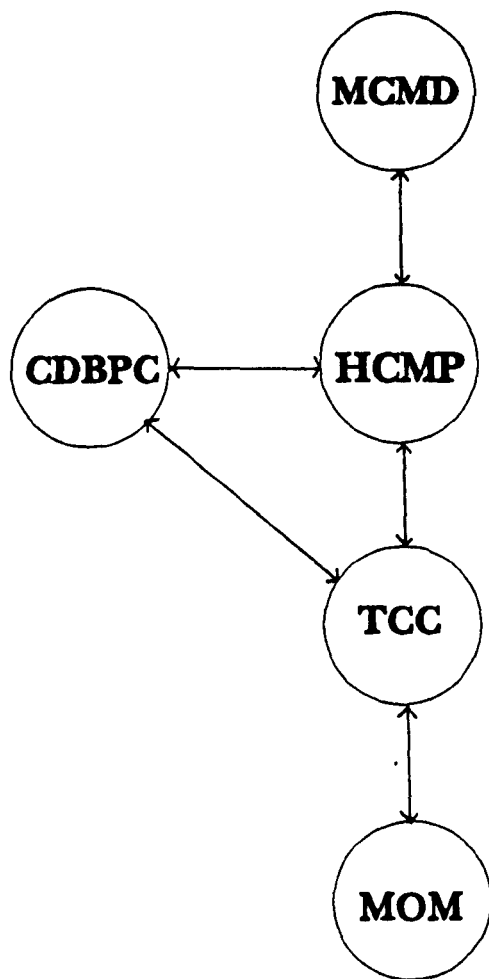


Figure 10.1: The recommended structure for communication and coordination process in Medina planning system.

municipality to continue supervising the process of urban planning thus linking plan making activity with day-to-day activities and ongoing public development project construction. During this course of action several objectives should be achieved:

1. The development of the control system as outlined above, which will improve the power of the municipality in facilitating the urban plan implementation.
2. Training programmes for the officials of the municipality in particular, and of the other public agencies in general, who expect and are highly recommended to become involved in the urban planning process through the TCC as mentioned before.
3. The establishment of the TCC as a co-ordinating channel which should play the most important role in running the urban plans, programmes and projects making process and implementation and monitoring and evaluation of the performance of Master and comprehensive urban plans. This committee aims to improve the decision taking process by improving the decision making process.

10.2 Further Needed Research:

The conclusions of the present study as a whole, as can be seen from the model in figure (9.1), has raised more questions about the urban planning process and practice in particular about the process of the urban plan implementation, especially in the Saudi context:

- a. The validity of the control system of urban planning as a social control. It needs more understanding especially with regard to the practice of the courts, the degree of compliance by government agencies and the private sector, and the extent to which the control system has facilitated the implementation of urban plans. The major cities of Saudi Arabia can be examined as case studies, and the comparison between the practice of the urban centers and rural areas might be useful in regard to developing the national framework. Further

comparative studies can be carried out between the control system of urban planning in Saudi Arabia and other Islamic countries to confirm the hypothesis concerning the Islamic principals as a distinguished factor in the process, and between the Saudi Arabia's experience and that of developed countries such as U.K. and U.S.A., to examine the transferability of experiences from developed to developing countries from one side and from non-muslim countries to muslim countries from the other side.

- b. The dynamics of the urban planning processes which raise the need for more insight about the dynamics of decision making, the role of the municipality in influencing this decision, the role of the leadership in the process. In term of achieving this study more elaboration may be performed for the model drawn from the present study is based on the models developed by the studies concerning western experience such as Bolan and Nuttall's (1975), Mintzberg et al (1976) and Bryson and Debecq (1983). These models might be very useful and helpful in elaborating the model in the present study and in operationalizing the concepts, phenomena and associations between them.

Different case studies can be chosen for the current practice either in Medina or other Saudi cities. For example in Medina the Central Area Renewal Project is now in the implementation process and the Western Harrah Renewal Project has been approved for implementation. In other cities such as Riyadh, the renewal project of the Governor Palace and Central Area Renewal Project etc. are very appropriate case studies to elaborate the understanding about the urban planning process dynamics in Saudi Arabia.

- c. The influence of land market as a dominant factor that can weaken the role of the urban planning in directing and shaping the physical outcomes. Several cities could be chosen in addition to villages and rural areas to examine the phenomena in the national context.

- d. The role of the private firms in the urban planning process and in shaping the physical outcomes. This can be examined through the explorative studies based on the elaborated model and case studies might be chosen for that in (b).
- e. The absence of people's involvement and influence in the urban planning process. This question involves two directions. The first concerns what the normative direction according to the Islamic perspective ought to be. Does Islam encourage the participation of people in making and taking public decisions that are concerned with urban development, or not? The other direction is the explorative one which focuses on examining the world as it is. In Medina some public projects required an involvement of the people who live near to the site of the project. In addition the Squatter Area Replanning Project, also, involved to some extent the participation of the people concerned. Similarly, many cases could be chosen from the Saudi experience of urban planning in the urban and rural areas.
- f. Regarding the normative type of research, it raises the necessity of an analysis and explanation but from the Islamic point of view. In other words when a lack of conformity with the MDP outlines is an evident, although there are an efforts from the concerned machineries have spent, the direct explanation can be provided by studying the world as it is, but further indirect explanation may be performed basing on the laws are prescribed and stated in Quran and Sunnah. That these two sources are in fact not only sources for a practical religious commands, but also sources for a divine explanation and images about the whole univers and its content (i.e. the dynamic and static laws and relationships within them and between each others).

Several issues, relevant to the urban planning process might be investigated. For example, the role of the state and right to intervene in controlling and directing the people's

activities particularly in using their properties. Can the state control the land values by classifying areas and pointing specific prices for each area similar to the regulations of densities and building heights? Can the state forbid land speculation, organise land uses etc? Then compare that with what actually is being practiced. Consequently, what does that mean according to the Islamic perspective? In other words, and for example is there a law implies that if any muslim society deviate from what Allah(God) prescribed, then a failure in life occurs?

- g. The interaction between central level and local level in the implementation process raises the issue of macro and micro implementation which implies that the central level "must execute its policy so as to influence local delivery organisations to behave in desired ways" (macro implementation) and in response to the central level actions, the local organisations have to devise and carry out their own internal policies (micro implementations). These concepts were developed and clarified in more detail in Berman (1978), which might be very useful in studying this issue.

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APPENDICES

CONTENT

APPENDIX A-1:
LAND SUBDIVISION REGULATIONS
(SOURCE: ABDULLAL, 1987)

APPENDIX A-2:
SELECTED STRATEGY FOR DEVELOPMENT BY THE MDP
(SOURCE: MMRA, MEDINA ACTION MASTER PLANS, REPORT NO.9)

APPENDIX A-3:
PLANNING ASSUMPTIONS OF THE MDP
(SOURCE: MMRA, MEDINA ACTION MASTER PLANS, REPORT NO.9)

APPENDIX A-4:
LAND USE PLAN INCLUDED IN THE MDP
(SOURCE: MMRA, MEDINA ACTION MASTER PLANS, REPORT NO.9)

APPENDIX A-5:
PLANNING BY-LAWS RECOMMENDED BY THE MDP
(SOURCE: MMRA, MEDINA ACTION MASTER PLANS, REPORT NO.7)

APPENDIX A-6:
ABSTRACT OF THE THIRD FIVE YESR PLAN PROJECTS
(SOURCE: MMRA, MEDINA ACTION MASTER PLANS, REPORT NO.14)

APPENDIX A-7:
HIERARCHY OF URBAN UNITS
(SOURCE: MMRA, MEDINA ACTION MASTER PLANS, REPORT NO.9)

APPENDIX A-8:
MEDINA SECOND RING ROAD PLAN, 1978
MEDINA SECOND RING ROAD PLAN, 1990
THE PLAN OF HIJJRAH ROAD

APPENDIX B-1:
THE INTRVIEEES WERE TARGETED FOR THE PURPOSE OF THE PRESENT STUDY

APPENDIX B-2:
CODING AND CODES

APPENDIX A-1

6.4.3.1 Land Subdivision Regulations

Land subdivision controls were introduced to the Kingdom in 1960. At that time, there were no specific regulations governing land subdivision. The basic principle at that time was that anyone who wanted to sell his land in lots was to seek approval from the Municipality, ie, the MOM in the case of Madina. The MOM judged an acceptable plan for the subdivision by their own criteria, because there were no written standards or specifications for land subdivision.

With the introduction of the Road and Building Law in 1972, land subdivision controls were transformed into more specific requirements for land subdivision. Chapter Eight of the Law contains some provisions dealing with land subdivision regulations under the heading "Preparation of Land for Residential Buildings and Regulations Governing Erection of Buildings Thereon". The law stipulates that:

- 1) vacant land may be subdivided into plots for residential purposes;
- 2) the owner of the land should apply to the Municipality for the necessary consent. This application should be accompanied by a subdivision plan which should be examined by the Town Planning department (the Regional Office of the MMRA before 1980, and the MOM after that date);
- 3) the subdivision plan should be compatible with the Master Plan of the city and in conformity with the rules established in the Law of Roads and Buildings;

- 4) if it happens that the area of the subdivision plan lies outside the Master Plan area, it should be linked to the Master Plan area; and
- 5) the owner of the land subdivision should not be compensated for public land allocated to service his subdivision. Such services include roads, parks, public open spaces, and community facilities, and the area of land dedicated for these services must not be less than 33% of the total area of the subdivision.

In general there are no specific regulations governing subdivisions, ie, the law entrusts the preparation or planning of the subdivision scheme to the MOM, but does not deal with the conditions and specifications to be met in the preparation of subdivision plans. In 1976 the MMRA issued circular no 5/340 to all Municipalities containing the rules and procedures for land subdivision, although in practice, the MOM is responsible for specifying details of the layout of the subdivision and buildings. The specific regulations over land subdivision fall within the following:

- 1) Subdivision process.
- 2) Technical conditions and standards.
- 3) Land dedication.
- 4) Special consideration to plots and blocks.
- 5) Public utilities and easements.

Details of these sections are stated below.

1) Subdivision Process

The Directorate of City Planning in the MCM is responsible for the processing of land subdivision applications, which run in two stages:

a) Phase One

Preliminary land subdivision proposals are submitted, usually in the form of an outline or sketch plan of land uses, density, circulation and integration of the site within the environs. If this preparatory proposal satisfies the Directorate of City Planning, then the Directorate issues an outline of subdivision permission (MMRA, 1981).

b) Phase Two

Approval to the preliminary proposal means that the applicant should provide a detailed subdivision plan, which includes land utilisation particulars, the circulation system and road cross section, utility system design, land easement and distribution of plots. These detailed requirements are then examined by the Directorate of Planning and, if they satisfy the specifications of 2, 3 and 4 (see below), the Directorate issues the subdivision permit, and the applicant can start selling the plots whenever he likes (MMRA, 1981).

2) Technical Conditions

This section of the regulation deals with the requirements which must be incorporated in the land subdivision plan including:

- a) desired size of land subjected to subdivision;
- b) land suitability;
- c) integration with the environs;
- d) conformity with land use and zoning;
- e) linkage with urban network including roads;
- f) density;
- g) land use allocation and disposition of facility areas; and
- h) plotting and minimum plot size.

3) Land Dedication

This section deals with dedication of land for public use in the form of:

- a) essential services, which include roads and car parks, gardens, open spaces, and other public uses and services, to be taken over by the MCM.
- b) Community facilities which include, but are not confined to, schools, health care facilities and mosques, responsibility for construction of which is assumed by the local offices concerned (see Section 6.3).

4) Special Consideration Vis a Vis Plots and Blocks

This section covers technical urban design specifications:

- a) street access each plot should front onto a street, and the minimum driveway width should be 5 metres.
- b) Plot lines should be, as far as possible, rectangular or square and the ratio of depth to width should range from 1.1 to 1.3.
- c) Plot orientation should take account of sun angles and of prevailing wind direction.
- d) Corner plots should be set back adequately to provide for safe sight lines.
- e) Double frontage plots should be avoided unless made necessary by, for example, topographic features.
- f) Non conforming plots (smaller than 100 sq m) should be either joined to adjoining properties or dedicated to the Municipality.
- g) Block design should be based on topography, and traffic system, plot size and dimensions and accessibility to community facilities.
- h) Residential block length should range from 250 to 750 metres.
- i) Non-residential block length should range from 500 to 1000 metres (MHRA, 1981).

5) Public Utilities and Easement

The provision of land for public utilities, eg, water, electricity and sewerage, should be incorporated in the subdivision plan. An easement of adequate dimensions (not less than 5 sq m) should be

provided where necessary for utilities such as electricity or their extension in the rear, front or side of the plots. Easements for on-street car parking should be dedicated wherever possible for public use (MHRA, 1981).

The effect of the above regulations on the timing and location of land subdivision is rather tenuous. The above sections of the land subdivision regulations oversee technical and detailed design aspects of the subdivision plan, but the actual location and timing of land subdivision is not dealt with. As far as location of land subdivision is concerned, the above controls give no insight on the way the proposed land subdivision should fit into the general pattern and distribution of land uses. In fact the above statutes of land subdivision give the MCM no legal right to oppose or reject approval of land subdivision anywhere in the city provided that, the location of the proposed land subdivision is not wanted for an immediate or future project. Since the master plan of 1971 became out of date (see Section 6.4.2.3) and the revised Master Plan has not been released yet, the Municipality has the right to reject subdivision only on land wanted immediately for public projects. This approach of approving land subdivision without a plan hampers the chances of using the subdivided land to satisfy any future public need except for private housing.

The second requirement for approval of subdivision is that the subdivision plan must conform to the above planning bye-laws, in accordance with which the proposed subdivision plan is evaluated by the Directorate of City Planning. Given this power by the

subdivision regulations, the MOM, represented by the Directorate of City Planning, may force applicants to dedicate more land to public facilities and to meet every detail of the above regulations in the subdivision plan. This may require submitting a number of proposals before a subdivision permit is granted. By this way of asking the applicants to meet the above specifications in their proposals, the MOM may delay the grant of the subdivision permit, but not unduly because of the political pressures on the MOM not to complicate the processing of applications by the public.

Furthermore, granting a subdivision permit is made with no consideration of the availability of infrastructure. As a result authorities concerned with the provision of infrastructure provide their services to catch up with development rather than planning ahead. Applicants for subdivision permits are not asked to provide or pay for the provision of services and therefore all responsibility for the installation of infrastructure is fragmented among the concerned local branches of central ministries, which do not coordinate among themselves to establish priorities among city areas in which to provide their services (see Section 6.4.2.2). This may lead to some areas being serviced with water supply but deprived of electricity or vice versa.

However, the recent resolution of the Council of Ministries (1986) to ban land subdivisions between 1986-1987 is authoritative. Recently the MOM has been authorised to ban landowners from subdividing their land until 1988, by when the MOM hopes to set

growth boundaries to limit urban growth. Further detail of the proposed growth boundary policy is given in the last chapter.

6.4.3.2 Zoning

Zoning is a demanding and direct method of land use control, in that land may be allotted into various zones according to a proposed usage or mixture of uses for each zone. Therefore, the use of land within each zone is controlled and only specified uses of land are permitted within each zone. Since the Directive Master Plan of Madina has not yet been approved, the zoning regulations in Madina are not clear. Nevertheless, the MOM put forward their own regulations to control uses and heights of buildings in various parts of the city. In doing so, the MOM divided Madina into three major zones, the first of which is the central area which is delimited by The First Ring Road. The second zone is the area outside the First Ring Road and demarcated by the Second Ring Road. The third zone is the area outside the Second Ring Road (Figure 6.5).

Uses within these three zones are controlled by the MOM. The first zone is devoted exclusively to residential, pilgrimage residence and commercial activities because of its proximity to Alharam (Central Mosque), which is the main destination for pilgrims. The second zone encompasses mainly residential areas, together with related services such as social infrastructure (school, mosques, hospital) and other government offices. Together with these uses are found agricultural areas which originated a long time ago; these areas

APPENDIX A-2

3.5 SELECTED STRATEGY: COMPACT DEVELOPMENT (CULTURAL CONCEPT)

The development and growth of the city will be guided by preconceived goals and objectives. The area bounded by the Second Ring Road will have priority for development and urban renewal, whereas the nuclei emerging on the peripheries will have their development controlled.

The Concentric Development will give equal chances of developmental growth to all areas, whether in the central city or on the peripheries. The basic strategy for the development of urban constituents will be as follows:

- a) Land uses in general would be characterised by organic articulation and hierarchy of functions. The Central Area would contain religious and commercial functions and Hujja accommodation, whereas the residential areas for permanent population would continue up to non-Muslim Road.
- b) Central Area would be protected from over pressure and congestion through planning control in order to enhance its Islamic character and environmental quality, and provide sufficient facilities to Hujja and Umra visitors.
- c) Appropriate residential densities would be adopted for the city. Within the First Ring Road the density would be medium to emphasize predominance of Al-Haram. Between First and Intermediate Ring Roads the density would be high, whereas between Intermediate and Second Ring Roads it would again be medium decreasing

would also contain them. Neighbourhood and community shopping centres will also be established. District shopping centres will be linked to the Intermediate Ring Road and the Second Ring Road.

- e) Light and medium industries would be located on the peripheries of the city in order to improve and diversify the economic base and protect the city from single function. The preferred locations would be on the non-Muslim Road close to non-Muslim workers and technicians, who are not allowed to enter the main city.
- f) Government offices related to Hujja services would be integrated with the Central Area Plan. Other government offices would be located along Intermediate Ring Road, Al-Anbariyah Road and Airport Road.
- g) Agricultural and green areas within the Second Ring Road shall be maintained, and used as open spaces and recreation areas in addition to the Metropolitan and Regional Parks.

The agricultural use would be developed in the north and north-west of the city and in the south within the urban area. The agricultural areas shall be preserved and cultivation shall be encouraged through controls and incentives.
- h) Major road network shall be primarily of circular pattern, such as First Ring Road, Second Ring Road and Intermediate Ring Road. The radials will link these roads and distribute the traffic through the loops systems, serving the Central Area, but not going through it

3.4

GOALS AND OBJECTIVES OF DEVELOPMENT STRATEGY

The three options were discussed in a series of meetings with the members of High Committee for Al-Medina Master Plan and the eminent citizens in order to evaluate and determine the goals and objectives leading to the final selection of a strategy for the planning and development of Al-Medina Metropolitan Area. These goals and objectives have been identified as follows:

- a) Hajj Pilgrimage: The Hajj pilgrimage should be given high priority. The services, facilities, movement and accommodation for Hujjaj should be provided closer to and within walking distance of Al-Haram.
- b) Character of Al-Medina: The specific cultural identity and social character of Al-Medina as the city of the Prophet Mohammad (Peace be upon him) should be maintained, and it should be planned and designed as a model Islamic city.
- c) Road Network: The established road network, whether executed or in design stage should be incorporated in the Plan. The First Ring Road and the Second Ring Road are a reality. Al-Hijra Road has been completed. Extension of Abu Zarr street is under execution. The emerging circular radial road network should be kept intact in the Plan.
- d) Cultural Areas: The areas of cultural and historical value should be preserved, re-developed, improved and made attractive. Strong linkages between the centre and these

- e) Al-Haram: It should be treated as the pivot and focus of the city and be relieved of congestion and non-conforming uses.
- f) Agriculture: The basic characteristic of Al-Medina as an oasis amidst barren lands should be maintained, and full advantage of soil suitability should be taken to develop agriculture, pastures, gardens and orchards.
- g) Economic Activities: The economic activities should be diversified and Hajj related light, cottage and medium industry should be established.
- h) Utilities and Services: Utilities and services should be made available to all residents economically without discrimination.
- j) Major Projects: Approved land subdivisions and important established land uses, such as hospital complexes, stadium etc., should be integrated with the development plan proposals.

The objectives cited above incremented the strategy of Concentric Development which was later presented by the Consultants and formally approved in the meeting of the Steering Committee on Sunday/Monday 8-9/11/1401 H.

The salient features of the Concentric/Compact Development Strategy which is based on the Cultural Concept

APPENDIX A-3

4.3 PLANNING ASSUMPTIONS

The preparation of the Master Directive Plan has been based on the following assumptions. Alterations and modifications may be required in the Plan, if any or many of these assumptions do not materialise:

- Al-Medina will remain the administrative centre of the Emirate.
- That the Kingdom will continue giving high priority to the development of Al-Medina Al-Munawara economically, socially and culturally during the Plan period.
- The city will remain acting as the collection and distribution centre for the sub-region extending up to Yanbu in the west, Khaiber in the north and Qasseim in the east.
- The city will remain the seat of learning and its Islamic University will continue offering high order Islamic education facilities.
- That new development and modernisation process will not lead to radical changes in the socio-cultural fabric of the society, religious sanctity, tranquility and environmental quality of the city.
- That the subdivisions approved, even if not developed will not be vacated and would be considered as "committed projects".

That the large parcels of land owned by the military authorities and other governmental agencies will not be available for planning purposes and the existing land subdivisions on some of military areas shall be integrated within the new Master Plan.

That Medina may in future specialise in light and consumer oriented industry.

That the population of the city will steadily increase from 310,000 permanent inhabitants in 1398 H. to 780,000 in 1415 H.

APPENDIX A-4

4.4 THE LAND USE PLAN

The proposed land use plan for Medina Metropolitan Area is directly co-related to the selected development strategy and its goals and objectives as analysed and determined in Sections 3.3.2, 3.4 and 3.5 of the foregoing Chapter 3. According to the selected strategy the hierarchy of various urban units e.g. Neighbourhoods, Communities and Districts is well defined and have been laid out within concentric/compact form of development which would ensure a coherent and dynamic Islamic society without implying unnecessary social and economic costs.

4.4.1 Intended Purposes

The intended purposes of the land use plan are as follows:

- to earmark the land requirement for various uses up to the year 1415 H. and determine the Metropolitan boundary for ultimate development beyond 1415 H.;
- to channelize urban development into right direction and at right time through phasing in order to prompt proper utilization of land and discourage under utilization of land for speculation purposes;
- to ensure discreet distribution of land in all parts of the Metropolitan Area for various uses e.g. residential, commercial, industrial, agricultural, institutional, cultural and religious facilities;

- to control population growth by using different density standards in different areas of the Metropolitan;
- to obviate unauthorised and incompatible uses in order to create healthy and aesthetically pleasing environment;
- to achieve a desired visual form of the city through zoning devices and regulatory controls regarding height of buildings and juxtapositioning of major land marks;
- to ensure successful implementation of the development policies as recommended in the Technical Report No.8 (Land Development Policies);
- to materialize the Islamic cultural concept in accordance with the Compact Development Strategy as recommended in the earlier sections;
- to synchronise development with the provision of utilities and services;
- to coordinate all the major development projects, whether existing or committed e.g. land subdivision, military lands, public and private sponsored projects and road networks etc.

4.4.2 Major Land Uses Policies

This section outlines the policies related to various major land uses e.g. residential, commercial, industrial, agricultural, educational, public utilities and facilities, recreational and natural resources and Hujj services, which have been followed in the preparation of the proposed land

use Plan. These policies have been formulated to subscribe to the Islamic cultural concept and help implementing its ideals in physical form which has been envisaged to be a compact development.

4.4.2.1 Residential Uses

Residential areas constitute a major and vital part of the urban block in view of its direct inter-relationship with all other land uses. Hence any policies concerning their location, type, design form and magnitude must be carefully envisaged so that they profusely promote Islamic way of life and satisfy the aspirations and day-to-day needs of the citizens conveniently. The Planned Unit Development (PUD) which relates to the type, design and layout of residential and also of commercial, industrial and recreational uses should be encouraged and introduced in the Action Area Plans in order to achieve immediate demonstration effect. This type of development is exempted from normal zoning, land subdivision regulations, density standards and building by-laws in order to facilitate freedom of ideas and an opportunity to the designers to use his ingenuity for producing innovative and imaginative designs such as 'cluster housing,' 'patio housing' and 'deck housing' etc. The guideline policies for the residential uses are briefly stated as follows:

A variety of living areas and housing types should be provided to meet the needs of all income groups.

The residential areas should be free from class distinction and social segregation and should represent a well knit society from social, economic and culture point of view in accordance with the principles of Islam.

- Residential development at urban densities should be within planned sewer and water service areas and where other utilities can adequately be provided.
- The Planned Unit Development (PUD) concept which relates to the type, design and layout of residential, commercial, industrial and recreational uses to a particular site, should be encouraged.
- Highrise - high density residential areas should be located close to the urban core and gradually tenting down to edges of the city.
- High-rise apartment living should be discouraged as much as possible in view of its social drawbacks.
- Residential neighbourhoods should be planned away from any land use activity which generates excessive levels of air or noise pollution or traffic generation.

4.4.2.2 Commercial Use

Medina has been a trading and commercial town from time immemorial and the central area around Haram Masjid-e-Nabwi has always remained hub of commercial activities. In the recent times it has come under great pressures due to significant increases in the commercial activities which have been brought about by the sudden economic boom and high population growth. This has necessitated the development of new commercial centres at various levels of urban units e.g. Neighbourhoods, Communities and Districts centre in order to relieve congestion and overcrowdedness in the central area.

without undermining or curtailing its role as a Central Business District. Following policy guidelines have been suggested for commercial development:

- The Central Area within the First Ring Road will remain the dominant activity generator and serve as the Central Business District (CBD) for the Metropolitan as well as the Medina region.

- Shopping centres which specialise in convenience goods and services for small areas should be provided at the community and neighbourhood levels in order to relieve congestion in the Central Area and fulfill daily shopping needs of the local inhabitants.

- Commercial establishments should be provided in concentrated clusters along major arterial streets.

- Mixing of commercial and service activities compatible with other uses, particularly in higher density areas, should be considered.

- Adequate off-street parking, delivery and loading facilities should be planned, particularly in the Central Business District.

- Pedestrian movement in all commercial areas should be planned in such a way as to avoid, as much as possible, conflicts with vehicular movement.

4.4.2.3 Industrial Use

Kingdom is giving great emphasis on the development of all kinds of industries and especially non-oil based industries. As for Medina the economic activities are mainly related to the Distribution and Service Industries only. The increasing demand for various goods which reaches its peak during the Hujj season and around the year has motivated establishment of many industries particularly those depending on local products such as dates packing, handicraft, manufacturing of carpets, blankets and various building materials. There are also prospects for the expansion of wool industry with the establishment of pasture, livestock and farm products.

The expansion of industrial activity in Medina reflected in the employment structure which increased from 1.2% in 1971¹ to 6.3% in 1978.²

The siting of two governmental sponsored industrial areas (covering approximately 12.5 hectares) in the south-west of the Metropolitan is another indicator to the government's policy for the development and expansion of industrial activities in Medina. Following guidelines shall be pursued in the provision of industrial areas in the proposed land use Plan.

- Only light and medium industries with adequate warehousing facilities should be encouraged

- A programme for the systematic dislocation of scattered industrial units, specially those situated in the residential and other non-conforming uses and their relocation in the industrial area as designated in the new Master Plan shall be affected

- The type, magnitude and location of any industrial activity shall be in conformity with the use zones as classified under Sections 4.6 and 4.7 of Technical Report No.7 (Planning Bye-laws).
- In view of the exceptionally sacred and serene nature of the city, all the industrial activities shall be preferably kept outside the Urban Block.
- The industrial units should be accessible to all modes of transportation and be located within the planned sewer and water service areas and where other ancillary facilities can also be provided.

4.4.2.4 Agricultural Use

Agricultural areas within the Urban Block has been under great pressures of urbanisation and very few small parcels of agricultural lands in scattered form have survived the onslaught of market forces. Medina Metropolitan Area and its hinterland is composed of very fertile tracts of lands and if agriculture is developed it would enormously contribute to the natural landscape as well as the economy of the Metropolis. Following policies have been formulated for the agricultural activities in the Medina Metropolitan Area:

- The existing agricultural lots within the Urban Block are too small to be economically viable. However, as a matter of policy these should be preserved and used for community facilities and visual amenities.
- New agricultural areas should be earmarked and developed outside the 'Urban Block', where the soil is suitable and water can be abundantly made available.

- Agriculturist should be given incentives both financial as well as technical for the development of new agricultural areas.
- Silos, cold storages and market centres should be established at strategic locations and an efficient transportation system connecting these points should be introduced for marketing and distribution of the agricultural products.

4.4.2.5 Recreational Use

There is a great scarcity of outdoor recreational facilities in Medina and it is official policy to make provision of various recreational facilities e.g. parks, playgrounds, public open spaces, botanical gardens, sports stadiums and picnic spots in the Metropolis. The main consideration for the provision of such facilities and amenities are as follows:

- The recreational facilities shall be determined and provided at all levels of human settlement e.g. regional, metropolitan, district, community, neighbourhood and local levels in accordance with the planning standards already recommended for the Metropolis.
- Potential sites bearing natural landscaping, topography, water features and other having historical landmarks shall be selected and developed as recreational resorts.
- Recreation resorts should be provided with adequate catering, car parking and maintenance facilities and should be connected with an efficient and economical transportation system.

4.4.2.6 Public Facilities and Services

In order to ensure a balance between urban growth and the provision of various public facilities and utilities, following guidelines shall be pursued:

- The provision of public facilities and services with regards to their type, design phasing and location should be used as an instrument to regulate urban growth.
- Higher priority shall be given to the extension of facilities and services to the unserved areas which are already inhabited and where the lack of facilities may result in health hazard and environmental deterioration.
- The vacant areas within the Urban Block provided with the facilities and services should be utilized for development and gradually extended to the areas where the services shall be provided on priority basis.
- The areas related to the Hujj oriented activities shall also get higher priority for the provision of services and facilities.

4.4.2.7 Transportation

Transportation is a function of land use and its efficiency will largely determine the successful inter-relationship of all other land uses which would ultimately influence the environmental standards of the Metropolis. Hence to ensure a high standard of environment the following points should be observed:

- Establish an integrated land use/transportation structure to be based on a hierarchy of functional relationship between home and all activities outside home.
- Provide a public transportation system which would cater for the needs of those people who would not be able to own a car during the Plan period up to 1415 H. and beyond.
- Transportation system should be efficient enough to meet present as well as the future travel demands of the population (high estimates) up to the year 1415 H.
- Provide a practical basis for phasing construction of road networks relative to the needs of the expanding community throughout the Plan period.
- While the new road network and parking areas should ensure safe, convenient and efficient circulation of vehicles and pedestrian, it should not bring about wholesale destruction and disintegration of the traditional and historical urban fabric.
- The road network should be complementary to the Islamic Cultural Concept and the Compact/ Concentric form of development strategy as envisaged in Chapter 3.

4.4.3 Disposition of Land Use Structure

The proposals in this section are based on the policies and objectives of principal land uses as outlined in the preceding Section 4.4.2. All the land uses have been rationalised in terms of their inter-relationship and their conformity with the ideals of the Islamic Cultural Concept which advocated Compact/Concentric form of physical development annullating around Haram Masjid-e-Nabvi. The salient features of the proposed land uses structure are as follows:

- Annulating development highlights Haram as strong centre and ensures well balanced trends of growth in all directions.
- The Central Area and the areas of cultural, historical and architectural significance therein have been preserved and made accessible through an ingenious network of vehicular as well as pedestrian routes while ensuring safety and convenience of users.
- The area of Haram has been enlarged manifold, and Hujj oriented facilities have been augmented around it in view of increasing number of Hujjaj every year, while enhancing overall environmental qualities and Islamic Character of the Central Area which would serve as a grand reception area to whole of Islamic Ummah all year along.
- Land uses in general are characterised by organic articulation and clear hierarchy of functions. The central core of the city contains mainly religious and administrative

functions, followed by commercial and residential land uses. The residential zones continues until the non-Muslim Road where it meets institutional and industrial uses which constitute outermost layer of the built up area.

Residential land uses show well adapted levels of density. Inside the First Ring Road there will be medium density (120 P.P.H.) to underline the predominance of Haram. Between the First and the Intermediate Ring Roads the density would be high (150 P.P.H.) while between Intermediate and the Secondary Ring Roads it will be medium again and would further decrease to low density (40 P.P.H.).

Commercial land uses are concentrated in the Central Area to serve Hujjaj as well as the permanent population of Medina. The major axes leading to the centre would also feature commercial facilities in order to complement the Central Area and also to serve the neighbourhoods. Commercial centres have also been provided at District, Community and Neighbourhood levels to fulfil local needs of the citizens.

Some governmental land uses related to the Hujjaj have been provided in the Central Area. Local government services have been provided along the major streets in the east and south-west of the Intermediate Ring Road while large areas for major governmental uses have been earmarked along the non-Muslim Road in the north and in the north-west along Tabuk Road.

Regarding the recreational land uses, large city park shall be developed in the south of the Airport around Wadi Aqul Dam and a Lake. Five additional public parks and six sports stadiums have been proposed at appropriate locations besides children play areas and public open spaces shall be provided at neighbourhood levels.

Industrial land uses will be primarily constituted of light and medium industry mainly located outside the Urban Block. Small scale sites for light industries have been proposed in the northeast (between Second and Third Ring Roads) and in the northwest along Tabuk Road, while large scale medium industry shall be restricted to the Industrial Estate (365 Ha.) in the south-west of Abar Ali along Medina-Jeddah Road which has been recently established by Amnat-ul-Medina. Another 1200 hectares site next to the Industrial Estate has been earmarked for an Industrial Town by the government. The Plan recommends dislocation of industrial units situated in the non-conforming area and their relocation in the designated industrial area.

Agricultural land uses shall be supported and developed mainly outside the Urban Block in the north and south where soil is favourable and water is sufficiently available. Small parcels of agricultural areas within the Urban Block have been preserved in order to be utilized for community facilities and visual amenities.

Table 4.1 gives the breakdown of existing land uses and the phased-wise distribution of various land uses up to the end of Plan period in 1415 H. As may be inferred from the table, while there will be an increase of 151% in population i.e. from 310,000 in 1398 H. to 780,000 in 1415 H. the area under various land uses as referred in the table will increase by 181% i.e. from 9066 hectares to 25,485 Ha. during the same period.

Similarly the Plan proposes to make a phase-wise increase in the urbanised land area from 69 Sq.Kms. in 1398 H. to 128 Sq. Kms. in 1405 H., 163 Sq. Kms. by 1410 H. and 203 Sq.Kms. by 1415 H. This signifies the fact that the proposed land use plan ensures higher spatial and environmental standards. Following sections give a brief account of the various design concepts and criteria envisaged in respect of each land use, as illustrated in Fig.(24).

4.4.4 Design Concept and Criteria for various Land use Elements

4.4.4.1 Residential

The Plan endeavours to integrate all the approved land subdivisions which in fact constitute major part of the residential land use requirements during the Plan period up to 1415 H. with minimum alterations or changes in the layout as it implied awesome process of acquisition and expropriation. Four different gross residential densities have been proposed i.e. low density (40 p.p.h.), low medium (80 p.p.h.) medium (120 p.p.h.) and high density (150 p.p.h.) which have been determined by various factors e.g. existing conditions, planned capacity of the approved subdivisions, planning bye-laws and regulations and the intensity and inter-relationship of various land uses guided by the Cultural Concept advocating compact form of development.

Land-use Category	Existing	Phase I	Phase II	Phase III
	1398 H. Pop: 310,000	1405 H. Pop: 454,000	1410 H. Pop: 600,000	1415 H. Pop: 780,000
	Hectare	Hectare	Hectare	Hectare
Residential	1286.00	1258.00	6345.50	8562.20
Residential-cum-commercial	142.75	378.60	378.60	378.60
Commercial	57.25	67.60	102.00	130.40
Industrial (Light)	159.00	269.00	349.00	431.00
Industrial (Medium)	120.00	256.00	326.00	386.00
Hujja Services	80.80	80.80	236.80	462.80
Utilities	414.50	78.80	172.00	198.00
Parks, Recreation & Sports	170.00	250.40	613.20	1574.00
Transportation and Communication	2300.00	1503.10	4665.90	4665.90
Offices	55.00	346.00	440.00	543.00
Institutional (Hospital, Palaces, Universities, Institutes, Govt. reserved Land)	1538.00	1578.00	1634.00	1640.00
Agriculture	2212.00	3562.00	4400.00	5232.00
Street Right-of-Way	507.32	677.92	973.72	1235.00
Haram Area & Badjah	24.00	46.80	46.80	46.80
Total	9066.62	16352.22	20683.50	25485.70

TABLE 4.1 EXISTING AND PROPOSED LAND USE DISTRIBUTION (1415 H.)

MASTER DIRECTIVE PLAN

Table 4.2 Given the breakdown of various residential densities envisaged and their respective relationship with the land requirement and the number of population to be accommodated therein. As indicated in the table average gross density has been gradually reduced from 217 p.p.h. in 1398 H. to 87 p.p.h. by the end of the plan period in 1415 H. which signifies the fact that the plan envisages higher living and environmental standards by means of efficient and spacious street network, public facilities amenities and clearance of slum areas. This will be achieved through phase-wise increase in the residential area from 16% in 1398 H. to 35% of the total urban area in 1415 H.

In pursuance of the ideals of the Cultural Concept the plan discourages the high density development which is generally high-rise apartment. In view of their social drawbacks. Hence the high density residential development has been restricted within the area between the First Ring Road and the Intermediate Ring Road and along the radial roads which have already been developed as Residential and Commercial streets in view of their close proximity to Haram and economic potentials. This area is expected to be fully developed during the first phase of the plan in order to cater for the needs of Hujja.

Medium and low-medium densities (80-120 p.p.h.) are mainly related to the areas covered by the approved subdivisions and have been worked out on the basis of the full potentials of each subdivision as permitted by the governing planning bye-laws and building regulations.

Low density residential development (40 p.p.h.) has been recommended in the peripheral areas, especially along the inter-urban highways e.g. Airport Road, Al-Hijra Road, Second Ring Road and areas in between which is in conformity with the proposed densities of the approved large subdivision as well as the sub-urban character of the Metro-polis. Fig. (25) shows areas under various densities.

Some areas within the residential zones have been earmarked for Planned Unit Development (P.U.D.). The P.U.D. is acknowledged as an effective system of upgrading the physical environment of an area on comprehensive and competitive basis and serves as a trend setter. This concept also encourages mixed development where all income groups could live together and form a social fabric in accordance with the ideals of the Islamic Cultural Concept.

Planning Bye-laws and guidelines and procedure for obtaining local authority's approval for a P.U.D. scheme have been set out in our Technical Report No.7 (Planning Bye-laws). This report also contains information with regard to various planning and design standards e.g. height of buildings, setbacks coverage and size of plots which vary in accordance with the density zone, arrangement and layout of lots, blocks and streets, provision of public facilities and amenities and environmental standards for residential developments.

4.4.4.2 Commercial Use

Major commercial activities will continue concentrating in the area around Haram and ground floors of the buildings along the main streets e.g. Quba Up and Down, Al-Awaly, Airport Road, Sultana, Qurban, King Abdel Aziz, Abu Zarr which have already been established as commercial corridors within the boundary of Intermediate Ring Road.

However, the Plan proposes to establish new commercial sub-centres at the neighbourhood levels and also provision of wholesale markets, collection and distribution centres at strategic positions in order to alleviate pressure on the Central Area and eliminate any possibility of congestion in the Plan period. A 15 hectares site for a wholesale market has been proposed near Al-Anbariya Road between Second Ring Road and Wadi Aqiq in view of its easy accessibility

TABLE 4.2 RESIDENTIAL LAND AREA REQUIREMENTS
(1415 H.)

Phase of Development	Existing		Phase I		Phase II		Phase III	
	1398 H. POP:310,000	Area(Ha.) %	1405 H. POP:454,000	Area(Ha.) %	1410 H. POP:600,000	Area(Ha.) %	1415 H. POP:780,000	Area (Ha.) %
Low Density (40 p.p.h.)	837.00	58.6	1506.40	33.6	2445.40	38	3420.40	38
Low Medium (80 p.p.h.)	-	-	338.40	7.5	771.40	12	2295.40	26
Medium Density (120 p.p.h.)	472.33	33.0	1540.00	34.4	2126.70	33	2126.70	24
High Density (150 p.p.h.)	119.00	8.4	1096.88	24.5	1096.83	17	1096.88	12
Total area under Residential Use	1428.00	100	4481.68	100	6440.52	100	8939.38	100
Average Gross Density(pph)	217		101		93		Av:87 p.p.h.	

MASTER DIRECTIVE PLAN

and suitability for distribution of wholesale goods. Another 45 hectares site has been allocated on Tabuk Road near its junction with non-Muslim Road which is a fast motorway linking Jeddah and Riyadh highways points. Consideration for this location is the reservation of an adjoining site for a proposed Railway Station along Tabuk Road which would understandably give boost to the trade activities of the imported goods from the Laventine.

The Plan suggests efficient road network, adequate parking areas and other ancillary facilities to make shopping activity convenient and enjoyable in all the commercial centres. The area under commercial use has been increased from 57 hectares in 1398 H. to 130 hectares in 1415 H.

4.4.4.3 Industrial Use

In pursuance of the objectives and policies as determined earlier in Section 4.4.2 and in view of the establishment of a large Industrial Estate on Jeddah-Medina Road near Abar Ali, the Plan has proposed only two additional modest size light industrial areas outside the urban block i.e. one at Tabuk Road near the proposed Railway Station and the wholesale market and other adjoining the Hujjaaj Camping Site near the Airport Road - Non-Muslim Road junction.

The medium industry will be restricted to the newly established Industrial Estate on Medina-Jeddah Road. Besides, Plan recommends that cottage industry for handicrafts and souvenirs for pilgrims may be located in residential neighbourhoods in order to facilitate even distribution of job opportunities.

The land allocation for industrial activities has been worked out on the basis of industrial labourforce and shall be increased from 279 hectares in 1398 H. to 817 Ha.

including 356 hectares of the Industrial Estate on Medina-Jeddah Road, during the Plan period. All the industrial development will be government by the designing, planning and environmental standards as laid down in Technical Report No.7 (Planning Bye-laws).

4.4.4.4 Hujjaaj Services

Hujjaaj services such as camping and parking facilities contribute much in the overall environmental conditions of this holy city during Hujj. At present only parking facilities for cars and buses exist along non-Muslim Road near the University Campus and on the site of old Railway Station on Anbariya Road. These facilities are provided for the Hujjaaj who come for pilgrimage on buses or cars. They are supposed to leave their vehicles on the site and are encouraged to come to Haram by public or hired transport. Existing area approximately 80 hectares is not sufficient to cater for projected demand during Plan period and it also lacks necessary camping facilities such as water stand pipes, temporary shelter etc.

The Plan has located an additional site for parking facilities along Al-Hijra Road which covers an area of 156 Ha. and a Camping site covering an area of approximately 226 Ha. along proposed King Abdel Aziz Road near Airport Road. Other small areas of same nature have been created near cultural areas such as Miqat Mosque, Sayed-As-Shohada, Qiblatain. Services and facilities should be provided according to bye-laws and zoning regulations mentioned in Technical Report No.7.

Their location has been determined on following criteria:

- They are located on major entry points into the city and in turn shall have direct road access to Haram by fast roads.
- Ensure convenient and economical access to all the areas of historical, cultural and religious significance.
- Can easily be provided with essential utilities and other services.

4.4.4.5 Recreation Areas, Parks and Sports

There is a great dearth of public open spaces and recreational areas in the city despite the fact that soil is very fertile and water is also abundantly available. Several palm groves private gardens and agricultural areas have been used up for physical development.

However, there are still small parcels of green areas within the Urban Block which are economically not viable for agriculture or fruit cultivation purposes hence the Plan has recommended to convert them into public open spaces, parks, playground and public gardens in order to provide much needed public amenities and visual relief to rising densely populated areas.

The Plan has also recommended to develop recreational areas around sites of historical, religious and architectural significance e.g. Seven Mosques Area, Quba Mosque Area, Al-Mikkat, Zul Halifa, Sayyed-Al-Shohada Area (Site of Ohad Battle), Qiblatain Mosque. These areas are subject of detailed study of Technical Report No.19 (Cultural Area Plans).

Besides large size sites have been allocated to cater for camping and parking facilities for Hujjaj. The Plan recommends to develop these sites in such a way that these can also serve as recreational areas during the normal period.

Similarly large tracts of land have been reserved as Controlled Areas for which no specific use has been determined during the Plan period. However, it is recommended to make interim use of the Controlled Area for Horse Race Courses, Golf Grounds, Woodland and agricultural area.

At the urban scale level the Plan has proposed an hierarchy of recreation areas and open spaces as described below:

- a) **Tot-lots:** These are the smallest play areas for the toddlers and shall be provided within the walking distance of the residential clusters. These shall be appropriately equipped with play apparatus, landscaped and sitting places for the guardians.
- b) **Playgrounds:** There will be appropriate number of playgrounds in each neighbourhood depending on its size for school going age children. These are preferably to be attached to the schools. These may also provide recreation for the local residents and should be properly landscaped and equipped.
- c) **Neighbourhood Parks:** Each Neighbourhood Unit shall have a centrally located park to provide recreational facilities for the local residents.
- d) **Community Parks:** One park for each Community has been proposed to cater for broad range recreation facilities. These sites vary in size according to the location and availability of suitable land. These will provide facilities for picnics and out-door games.

e) City Parks: On the Metropolitan level three large parks have been proposed taking advantage of the natural topography of the land soils and availability of water as follows:

- One is the island formed in Wadi Al-Aqiq in the north-west of the city. This island can be landscaped nicely, creating water body and trees and shrubs etc. with sand and gravels around. The park can be used for picnics, camping, rest and recreation, close to the nature.
- Another area has been proposed in the west of the city between Wadi Aqiq and the mountain, taking advantage of the natural features.
- The third park would be developed in Ain Az-Zarqa Area taking advantage of the underground water and existing green areas and gardens.
- A park has also been proposed on Jabal Sala, which would provide good scenery as well as recreation.

These Metropolitan Parks would suffice for the population even beyond the year 1415 E.

f) Regional Park: A special recreation and educational facility has been proposed in the north-east of the city around the seasonal lake formed by Wadi Al-Uqool. The area proposed contains a zoo, exhibition ground, camping and recreation sites, and childrens' play and recreation areas. The lake may be filled in off-seasons through tube-wells. If properly developed and maintained this will provide most needed recreation on the regional level

Planning standards for open spaces and parks etc. have been prepared in detail in conjunction with the Execution Plan and Action Area Plans.

APPENDIX A-5

4. LAND-USE REGULATIONS (ZONING ORDINANCE)

4.1 TITLE

This ordinance shall be known as Al-Medina Al-Munawara Zoning Ordinance. It is intended to control land development in Al-Medina Metropolitan Area, regulate the locations and establishment of buildings and structures, the land and building uses in conformity with the recommendations of the approved physical plans: the Master Directive Plan, the Execution Plans and the Action Area Plans.

4.2 OBJECTIVE

The objective of this ordinance is to promote public health, general welfare, uphold the social ties, the privacies of the individual and the dwellings in Al-Medina in general, prevent traffic congestion, hazards of fire, epidemics, pollution and industrial waste, secure enough air and light, regulate and control population densities, and conserve the value of land and property.

4.3 SCOPE

From the effective date of this ordinance the use of land and every building or a portion of a building erected and altered with respect to height or area, added to, or repaired, and every use within a building or use accessory thereto in Al-Medina Al-Munawara, shall be in conformity with the provisions of this ordinance. Any existing building or structure and any existing use of a

building or land not in conformity with the regulations of this ordinance shall be regarded as non-conforming.

4.4 DEFINITIONS

Unless otherwise expressly stated the following words and phrases shall be construed to have the meaning herein indicated:

- Accessory Use: A use which is clearly incidental to, customarily found in connection with and located on the same lot as the principal use to which it is related.
- Acrades: A continuous covered path on the ground floor of a structure, open to a street, square or other public open space and accessible to passage at all times.
- Bay Window: A projection on any upper floor enclosed by walls up to its full height.
- Building: Any structure having a roof supported by columns or walls and intended for shelter, housing or enclosure of persons, animals or property.
- Building Area: The total of areas taken on a horizontal plane at the main grade level of the principal building and all accessory buildings exclusive of uncovered porches, terraces and steps.
- Building Height: The vertical distance measured from the main elevation of the finished grade line of the ground about the front of the building to the highest point of the roof.

- Building Line: The line parallel to the street line at a distance therefrom equal to that depth of the required front yard and shall not exceed it except for works or degree fixed by the ordinance.

- Bulk: The size of buildings or other structures and their relationship to each other and to open areas and lot lines and therefore includes:

The size including height and floor area.

The area of the lot upon which a residential building is located.

The location of exterior walls or buildings or other structures in relation to lot lines, to other walls of the same building and the neighbouring buildings or structures.

All open areas relating to buildings or other structures and their relationship thereto.

- Balcony: A projection on any upper floor enclosed by a parapet wall not exceeding 1.5 meter as an onlook place.

- Easement: A storey having part but not more than one-half of its height below finished grade. A basement shall be counted as a storey for the purpose of height measurement or floor area measurement if the vertical distance between the ceiling and the average level of the finished grade is more than 1.5 meter or if used for business or dwelling purposes.

23

- Cellar: A story having more than one-half of its height below the average finished level of the adjoining ground. A cellar shall not be counted as a story for purpose of height measurement.

- Coverage: The area occupied by the building including the accessories related to the lot area. The balconies and the outside uncovered steps are not included in the measurement of the building area up to 10% of the building area.

- Corner Lot: A lot which has at least two contiguous sides abutting upon a street for their full length.

- Common Land: A parcel or parcels of land together with the improvements thereon, the use, maintenance and enjoyment of which are intended to be shared by the owners and occupants of the individual building units in a planned unit development.

- Conditional Uses are those which require prior approval and review of the site in addition to the building permit in implementation of this ordinance or other legislation such as the law of premises causing inconvenience or hazards to public health and the law of public places and hotels as well as the uses other than those specified in the included zone such as the residential use in a commercial or industrial area or a commercial use in residential areas.

- Dwelling Unit: A building or portion thereof including one or more room in a residential building or in a mixed building which are arranged, designed, used or intended for use by one or more persons living together and maintaining one household and which includes a cooking place and sanitary facilities reserved for the occupants thereof.

- Family: An individual, or two or more persons related by blood or marriage or a group not to exceed two persons not related by blood or marriage occupying premises and living as a single non-profit house keeping unit with single culinary facilities.

- Floor Area The sum of the gross horizontal areas of all the floors of a building or dwelling unit, measured from the exterior faces of the exterior walls or from the center line of walls separating dwelling units.

- Floor Area Ratio (F.A.R.) The total floor area on a lot divided by the lot area(See Fig.2).

- Finished Grade: The completed surface of the street center line in front of the building as shown on official plans or designs related thereto.

- High Planning Committee High Planning Committee for Al-Medina Al-Munawara.

- Home Occupation: An accessory use of a service or professional character conducted

within a dwelling by the family residents thereof which is clearly secondary and incidental to the use of the dwelling for living purposes and does not change the character thereof.

Interior Lot: A lot other than a corner lot.

Junk Yard: A piece of land covering more than 20 square meters in area used for the abandonment, storage, keeping, collecting or baling of paper, rags, scrap metals, other scrap or discarded materials, or for abandonment, demolition, dismantling, storage or salvaging of automobiles or other vehicles or machinery or parts thereof.

Lot: The land occupied or to be occupied by a building, structure, land use, or group of buildings together with such open spaces or yards as are required under this ordinance and having its principal frontage upon a street.

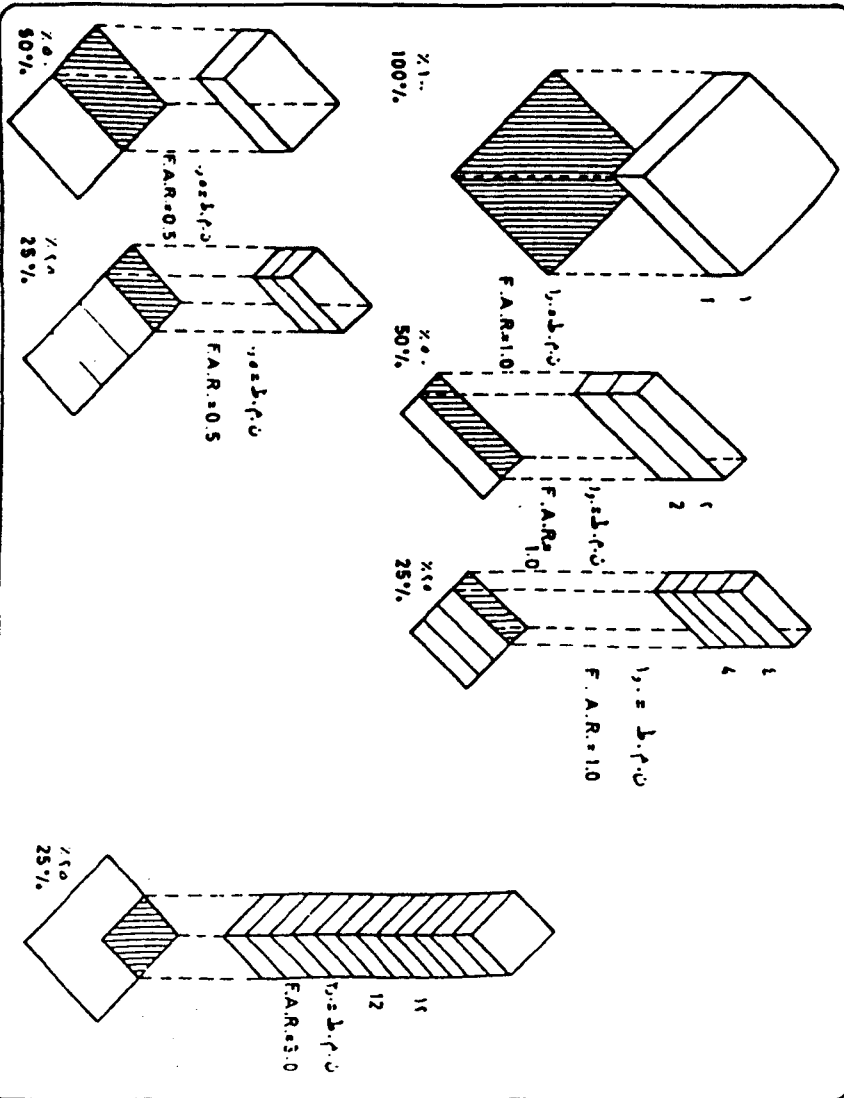
Lot Line: The property line bounding a lot.

Lot Width: The width measured along the front lot street lines.

Lot Depth: The mean distance from the street line of the lot to its opposite rear line measured in the general direction of the side lines of the lot.

Mixed-use Building: A building located in a commercial district used partially for dwelling and partially for services or commercial activities.

LEGEND	
F. A. R.	
FLOOR AREA RATIO	
Zoning Ordinance	
FLOOR AREA RATIO	
Source	Date No
Ordinance 1/1/87	2



Non-conforming Use: A building structure or use of land existing at the time of this ordinance which does not conform to the regulations of the district in which it is situated.

Open Space: Any unoccupied space open to the sky on the same lot with a building.

Principal Use: The main use to which the premises are devoted and the principal purpose for which the premises exist.

Principal Building: A building in which is conducted the main or principal use of the lot on which it is located.

Room: An area of a dwelling unit not including bathrooms, closets, kitchens and passages.

Right of Way: A street, alley or other throughfare or easement permanently established for the passage of persons or vehicles.

Street Line: The legal line of demarcation between a street or road and abutting land, which is also known as the edge or furthest extreme of the right-of-way.

Use: The purpose for which land or a building is arranged, designed or intended or for which land or a building may be occupied.

Use By Right: Uses permitted without a site plan review or permit other than building permit, provided the use complies with the standards

Yard: An open space on the same lot with a building, unoccupied and unobstructed from the ground upward except as otherwise provided herein. The measurement of a yard shall be the horizontal distance between the lot line and the building line.

4.5 ADMINISTRATION AND ENFORCEMENT

4.5.1 General

The provisions of this ordinance shall be administered by the High Planning Committee, Al-Medina Planning and Development Department and Amanat Al-Medina in accordance with this ordinance.

The erection of building and construction, alteration, raising, enlargement, uses of buildings and land-uses shall be in conformity with the provisions of this ordinance as well as the uses permitted in the respective zone and the regulations specified therein.

The enforcement of the ordinance shall not supercede or prejudice any provisions or conditions embodied in other laws or regulations in force.

4.5.2 Building Permits

No work prescribed in the previous paragraph shall be undertaken until a building permit is issued by the department concerned in Al-Amanat. The permit is issued according to the rules and procedures stated by the building law after making sure that it is in compliance with the provisions of this ordinance and the fulfilment of procedures and approvals required.

4.5.3 Application for Building or Use

The application for a building or use shall be submitted to the concerned department at Al-Amanat in compliance with the procedures defined by the building law and its regulations. The following are to be attached with the application:

- a) The documents and data required by the building law.
- b) The documents and data required by this ordinance and which are not mentioned in the building law and in particular:
 - The layout of the site and the surrounding streets, set-backs - number of floors intended to be erected, number of dwelling units, the area of the lot, the coverage, open space ratio, and floor area ratio.
 - The existing and intended uses on the lot and the existing uses on the neighbouring lots.

4.5.4 The Existing Buildings and Uses

Concerning the existing buildings, structures or uses, which do not comply with the provisions of this ordinance, they shall be considered non-conforming buildings or uses and shall be subject to the provisions of the ordinance.

4.5.5 Certificate of Zoning Compliance

A certificate of zoning compliance should be issued before undertaking the following:

- a) Occupancy or use of buildings or structures which are erected, constructed or altered.
- b) Use of open space.
- c) Alteration of buildings uses.

The department concerned in Al-Amanat will issue the compliance certificate after review of the site and making sure that the erection, construction, alteration of buildings or structures use or alteration of use or use of open space are in compliance with the provisions of this ordinance and other regulations in force. A copy of the certificate is given to the applicant and the other is kept in the file of the permits.

The applicant for building or alteration, on the completion of the works, has to notify the department concerned before the occupancy of the building or the open space. Also the applicant for the use of open space shall notify the abovementioned department before the use or the alteration of use.

4.5.6 Occupancy Certificate

The building or land shall not be occupied or used except after the issuance of the occupancy certificate following the final review of the building or land and at the request of the owner or occupant on the form prepared for this purpose. The application for this certificate is submitted with the building or use permit.

The certificates shall be registered and filed in a special record at the department concerned at Al-Amanat. Copies of these certificates can be given to any party concerned with the property.

4.5.7 Fees

The fees for permits and certificates shall be established by the Municipal Council and declared in a decision by Emir of Al-Medina Area.

4.5.8 Enforcement - Violations - Penalties

It shall be unlawful for any person to commence operations of any kind that are in violation of the terms of this ordinance and any violations shall be subjected to the penalties prescribed by the applicable laws.

The imposition of any punishment shall not exempt the offender from the correction or clearance of works or uses not conforming. The concerned authority undertakes the enforcement at the expense of the offender according to the law.

4.5.9 Variations

The High Planning Committee may authorize specific variations from such requirements as lot area, and width regulations, building height and bulk regulations, off-street parking and loading space requirements.

These variations may be authorized for one of the following reasons:

- a) Fractical difficulties or constraints which prevent carrying out the strict letter of this ordinance. These difficulties shall not only be deemed economic, but shall be evaluated in terms of the use of a particular parcel of land.

- b) Where there are exceptional or extraordinary circumstances of physical conditions such as narrowness, shallowness, shape or topography of the property involved, which are peculiar to the particular lot or block and do not apply to the district. The carrying out of the strict letter of the ordinance will not give the owner the reasonable return and the variance in this case is essential to give him that reasonable return.

- c) Where such variations are necessary for the preservation of a substantial property right possessed by other properties in the same district

There are certain conditions for granting the variations:

- a) The variance grant will not be injurious to public health and public security
- b) That the grant will not cause an adverse effect upon property values in the immediate vicinity
- c) That the grant will not interfere with the requirements and recommendations of the Master Plan, the Execution Plan and the Action Area Plans in Al-Medina Al-Munawara.
- d) The difficulties or hardships have not been created by the owner or by a predecessor in title.

- e) That the situation requiring a variance would be better solved through the issuance of a variance than through an amendment of the zoning ordinance or map.

4.5.10 Variance Application

The variance application shall be submitted on the prescribed forms, which would contain the required data and the justifications for getting the variance, to Al-Medina Planning and Development Department. The department shall register the application and would forward it with its observations and opinion to the High Planning Committee within two weeks of receiving the application.

The Committee shall make a decision within two weeks and in either case of approval, disapproval or conditional approval, the matter would be referred to the Municipal Council to make a final decision on it within two weeks from the date of receiving it.

Al-Medina Planning and Development Department notifies the applicant in writing with the decision of the Municipal Council regarding approved, disapproved or conditional approval.

4.5.11 Application for the amendment of Zoning Map

The owner of the property may request the amendment of the zoning district map, when he is aggrieved by the provisions of the Zoning Map.

The application for amendment shall be submitted to the Al-Medina Planning and Development Department and shall be processed similarly according to the procedures adopted in the variance cases.

4.5.12 Exceptions

The Municipal Council at the request of Al-Medina Planning and Development Department may issue permits for exceptions for specific cases providing they do not interfere with the general character of the district and the purposes of this ordinance and do not change the principal uses in the districts. These cases are:

- a) Reduction, modification or waiver of any of the off-street parking or off-street loading regulations prescribed in this ordinance when it is demonstrated that its strict implementation would unquestionably result in hardship to the applicant. Hardship shall not only be deemed economic but shall be evaluated in terms of the use of a particular parcel of land. A hardship that is a result of any action of the applicant shall not be considered.

In no case shall the off-street parking or off-street standards be reduced by more than 25%.

- b) Joint use of off-street parking areas may be authorized when the capacities outlined in this ordinance are complied with and when a copy of an agreement between joint users shall be filed with the application for a building permit and is recorded with the Register of Deeds.

- c) In any area uses other than those prescribed can be authorized when such uses are similar as to and of the same nature of the areas providing they do not interfere with the spirit and the purposes of this ordinance.

- d) Without prejudice the prescribed coverage, the High Committee for Planning may, after the consent of the Municipal Council, exempt specified blocks in R1 and R2 residential districts from the stipulated side and rear set-backs. This exemption is to adopt the interior enclosed court system in the design of buildings in all lots contained in the abovementioned blocks.

4.5.13 Non-conforming Uses and Buildings

The lawful use of land or building existing at the time of the adoption of this ordinance may continue although such use does not conform to the regulations specified by the ordinance for the district in which the said land or building is located subject to the following conditions

- a) The Municipal Council may at the request of Al-Medina Planning and Development Department ask for turning a non-conforming use - other than a building - into a conforming use within a period of at least two years.
- b) Any non-conforming use of land or building which has ceased by discontinuance or abandonment for a period of one year shall thereafter conform to the provision of this ordinance.
- c) Any non-conforming building which has been destroyed or damaged by fire, explosion or act of God to the extent of 60% or more of its assessed valuation shall therefore conform to the provisions of this ordinance on its reconstruction. Where more than 40% of

the assessed value of the building remains after such damage, such structure may be restored to the same non-conforming use as existed before such damage.

- d) No non-conforming use of a building may be moved to any other part or parcel of land upon which same was conducted at the time of the adoption of the ordinance.
- e) No non-conforming building shall be repaired, enlarged or structurally altered except to make it a conforming building.
- f) A non-conforming use of a building existing at the time of the adoption of this ordinance may be extended throughout the building provided no structural alteration, except those required by ordinance or law are made therein and provided that the prior approval of Al-Medina Planning and Development Department has been obtained.
- g) The use of a non-conforming building may be changed only to a use of like or similar character or to a use conforming to the district in which the property is located.
- h) The foregoing provisions shall also apply to non-conforming uses in districts hereafter changed by amendment to this ordinance.
- j) Amanat Al-Medina may after the approval of the High Planning Committee request the clearance of a non-conforming building or use or its alteration to a conforming use

in the public interest provided the means to transfer this use are available and the compensation is made if necessary.

4.5.14 Conditional Uses

- a) If the conditional use does not require a special permit, the application for the conditional use shall be submitted to Al-Medina Planning and Development Department with the following data and documents:
 - Site Plan on a scale not less than 1:100 illustrating the buildings and structures erected on the site, open spaces, the setbacks, the buildings and structures intended to be erected, the dimensions, the location of abutting streets, the existing uses and the intended uses.
 - Location of off-street parking.
 - Any other data or details required by the Planning and Development Department.
- b) If the conditional use is one that requires a special permit in compliance with this ordinance and the laws and regulations applied in Al-Medina Metropolitan Area, the application for a permit is submitted to the department concerned in Al-Amanat attached with the data and documents required. Concerning the permit for Planned Unit Development (PUD) the following to be filed with the application:

- The subdivision plat illustrating the lots, the streets, open spaces, area of the unit, off-street parking, number of dwelling units, area of lots, area of all the streets, open spaces and car parks, the street and open space area ratio.
- The intended use for each lot.
- Maps about utility network to be constructed if public utilities are not available near the site.
- Documents establishing the open spaces are dedicated for public interest in compliance with the provisions of paragraph

4.6 CLASSIFICATION OF DISTRICTS

For the purposes of this ordinance Al-Medina Metropolitan Area has been divided into the following districts (refer to the annexed Zoning Map):

<u>Zone</u>	<u>Description</u>
H	Haram-e-Nabawi District
R1	Low Density Residential District
R2	Low Density Residential District
R3	Medium Density Residential District
R4	High Density Residential District
R5	High Density Residential District
R6	High Density Residential District
G	Governmental Offices
C1	Local Business District
C2	High Intensity Business District

C3	Major Street Business District
C4	Planned Shopping Center
M1	Light Industrial District
M2	Medium Industrial District
S	Institutional District
CUL	Cultural District
HS	Hujjaj Service District
PU	Public Utilities District
A	Agricultural District
SP	Special Use District
W	Wadi District
M	Mountain District
B	Baqiah (Cemetery) District

4.6.1 Zoning Map

The boundaries of districts will be shown on a map called Al-Medina Al-Munawara Zoning Map. This map illustrates all amendments thereto and all notations, references and data shown thereon, are hereby incorporated into this ordinance and shall be as much a part of this ordinance as if all were fully described herein.

Two copies of the Zoning Map are prepared. One is filed with the Secretariat of Al-Amanat or the Technical Archive there and the second at Al-Medina Planning and Development Department.

4.6.2 District Boundaries

It should be observed as much as possible that the district boundaries are center lines of streets or rail roads if found, parallel or perpendicular thereto. Where figures are shown on the Zoning Map between a street and a district boundary line they indicate that the district boundary line runs parallel to the street line at a distance therefrom equivalent to the number of meters indicated.

Where a district boundary line divided a lot which was held in single and separate ownership on the effective date of this ordinance, the use and bulk regulations applicable to the less restricted district shall extend over the portion of the lot in the more restricted district a distance of not more than 15 meters beyond the district boundary line. However, in a situation in which the extension of the boundary line of the less restricted district would leave a portion of the lot less than 5 meters wide in the more restricted district, then the district line shall be extended to over the full width of the lot.

4.7 USE ZONES

4.7.1 H - Haram-e-Nabawi

a) Uses Permitted by Right:

- All uses related to religious offerings such as praying area of Al-Haram and related constructions.
- Extension area of Al-Haram.
- Area and buildings of historical significance
- Administrative uses related to Al-Haram.
- Utilities and services buildings related to Al-Haram.
- Office buildings (e.g. Police, Health, Fire Station related to Al-Haram).

b) Conditional Uses:

- Parking areas.

4.7.2 R1 - Low Density Residential District

a) Uses Permitted by Right:

- Single family dwellings.
 - Customary accessory uses and buildings; provided such uses and buildings are incidental to the principal use. Any accessory building shall be located on the same lot with the principal building and if an area not exceeding 60 square meters. No accessory building shall be constructed upon a lot until the construction of the main building has been actually commenced and no accessory building shall be used unless the main building on the lot is completed and used. Accessory uses included living quarters or rooms for domestic employees and servants of the resident of the principal building, garages and places for storing unused equipments and materials.
 - Public recreation areas and public parks according to execution plans.
- b) Conditional Uses:
- Temporary buildings for uses incidental to construction works, such buildings shall be removed upon the completion of the construction work or within the period of one year, whichever period of time is the shortest.
 - Mosques.
 - Schools, educational institutions, Kindergartens and nurseries.

- Private non-commercial recreation areas such as private, non-profit swimming pools, non-commercial sports, social and fine art clubs according to the applied relevant regulations.
- Public services offices such as police station, post/telephone and telegram offices and health care centers.
- Shopping center provided it is designated in execution plans and the area of any shops not exceeding 60 square meters. The uses permitted in the shopping center shall be limited to retail food stuffs, household utensels and appliances and light repair shops for the household appliances and equipments with an area not exceeding 30 sq. meters for every shop.
- Planned Unit Development, in accordance with the related provisions in this ordinance.
- Signs and name boards according to the provisions of this ordinance.

c) Bulk and Dimensional Requirements:

-	Minimum Lot Area	750 Square Meters
-	Minimum Lot Width	25 Square Meters
-	Minimum Lot Depth	30 Square Meters
-	Maximum Lot Coverage	50%
-	Minimum Set-backs:	
	Front	4 Meters
	Side	3 Meters
	Rear	5 Meters

33

15

F.A.R

1

Minimum distance between two buildings on the same lot other than accessory buildings shall be 3.0 meters or one-third of the highest building whichever is more.

Maximum building height shall be 2-storey provided not exceeding 8.0 meters in height.

4.7.3 R2 - Low Density Residential

a) Uses Permitted:

All uses permitted by right and conditional uses permitted in R1 District subject to all the restrictions specified therein.

Two family dwelling.

b) Bulk and Dimensional Requirements:

Minimum Lot Area	600 square meters
Minimum Lot Width	20 meters
Minimum Lot Depth	30 meters
Maximum Lot Coverage	50%
Minimum Set-backs:	

Front	4 meters
Side	3 meters
Rear	5 meters
F.A.R.	1.5

Minimum distance between two buildings on the same lot other than accessory building shall be 3 meters or one-third of the highest building whichever is more.

Maximum height of building shall be 2½ storeys provided not exceeding 11 meters in height.

4.7.4 R3 - Medium Density Residential

a) Uses Permitted by Right:

All uses permitted by right in R2 district subject to all the restrictions specified therein.

Multiple family dwelling.

b) Conditional Uses:

All conditional uses permitted in R2 district subject to all the restrictions specified therein.

Group housing development consisting of a group of single constructed buildings for residential housing which shall include those types of residential housing customarily known as garden apartments, terrace apartments or other housing structure of similar character of which each constructed building thereof shall be used by three or more families. Such uses shall be permitted provided that the proposed project is served by public water system or sanitary water and sewer system and provided there is compliance with the bulk and dimensional requirements of sub-section (d).

Commercial streets according to what is specified in the Master Director Plan and Action Area Plans which include retail food

establishments, household utensels and electrical equipments, gifts, jewellery, clothing, books and personal service establishments including barber or beauty shops, tailoring shops and repair shops for shoes. These uses should be maintained only in ground and first upper floors.

Professional offices and clinics.

Home occupations subject to all restrictions specified in this ordinance.

Signs according to provisions of this ordinance.

Off-street parking according to provisions of this ordinance.

c) Bulk and Dimensional Requirements:

Minimum Lot Area	400 square meters
Minimum Lot Width	16 meters
Minimum Lot Depth	20 meters
Maximum Lot Coverage	60%
F.A.R.	3
Minimum Set-backs:	
Front	3 meters
Side	3 meters
Rear	5 meters

Minimum distance between two buildings on the same lot other than accessory building shall be 3 meters or one-third of the highest building whichever is more.

Maximum height of building shall be 5 storeys including the ground storey provided not exceeding 17 meters in height.

d) Group Housing:

The High Committee for Planning shall approve the site which shall ensure the the following provisions:

- Minimum Site Area 2 Hectares
- Minimum area occupied by building 350 square meters
- Maximum site coverage 60%
- F.A.R. 2.4
- Minimum distance between building (front to front) - 8 meters for buildings one storey in height and increased by 1 meter for every storey added.
- Minimum horizontal distance between ends of buildings - 4 meters for buildings one or two storeys in height, increased by 1 meter for each storey added in excess of two storeys.
- Where end of one building is opposite the face or rear of another building the minimum horizontal distance between them shall be not less than 6 meters for one or two storey buildings increased by one meter for every storey added in excess of two storeys.
- Closed Courts are not permitted.
- Minimum Set-backs:

Front	10 meters
Side	4 meters
Rear	12 meters
- Maximum Height shall be 4 storeys not exceeding 13 meters in height.

4.7.5 R4 - High Density

a) **Uses Permitted by Right:**

- All uses permitted by right in R3 district subject to all restrictions specified therein.

b) **Conditional Uses:**

- All conditional uses permitted in R3 district except Planned Unit Development and Group Housing.

- Retail and service shops in ground and first upper floor only.

- Clinics and professional offices.

- Public facilities such as (police stations, school, mosques, health care centers, post and telephone offices).

- Supermarkets.

- Cafe and Tearoom and social, fine-art and cultural clubs, provided following relevant legislation.

- Signs and advertisements according to relevant provisions in this ordinance.

- Off-street parking according to relevant provisions in this ordinance.

c) **Bulk and Dimensional Requirements:**

- Minimum Lot Area 200 square meters
- Minimum Lot Width 12 meters
- Minimum Lot Depth 17 meters
- F.A.R. 3
- Maximum height shall be 3 storeys not exceeding 11 meters in height.

4.7.6 R5 - High Density Residential

a) **Uses Permitted by Right:**

- All uses permitted by right in R3 subject to same restrictions.

- Multiple floors and dwellings, buildings.

c) **Conditional Uses:**

- All conditional uses in R3 district subject to same restrictions.

- Retail and service shops in ground and first upper floor only.

- Institutions for human care including hospitals, clinics, sanitariums, nursing or convalescent homes and philanthropic and charitable establishment upon compliance with relevant legislation.

- Mosques and religious institutions and their libraries.

- Educational and social institutions, governmental and private primary and secondary schools, kindergartens, nurseries, institutions for higher education, auditorium and other places for assembly, libraries and other centers of social activities upon compliance of related legislation and after permission of concerned authority.

- Professional offices including architects, engineers, arts, lawyers and real-estate agents.

- Banks and financial institutions.

- Home occupation subject to provisions in this ordinance.

- Hotels, restaurants and cafes.

- Light repair shops for domestic equipments.

- Signs and advertisements subject to relevant restrictions specified in this ordinance.

- Off-street parking according to provisions of this ordinance.

c) Bulk and Dimensional Requirements:

-	Minimum Lot Area	600 square meters
-	Minimum Lot Width	18 meters
-	Minimum Lot Depth	25 meters
-	Maximum Coverage	70%
-	F.A.R.	35
-	Minimum Rear Set-backs	4 meters
-	Maximum height shall be 5 storeys not exceeding 17 meters in height.	

37
4.7.7 R6 - High Density Residential

a) Uses Permitted by Right:

- All uses permitted by right in R5 subject to restrictions specified therein.

b) Conditional Uses:

- All conditional uses permitted in R5 district subject to restrictions specified therein.

- Automobile showrooms for new or used automobiles.

- Planned unit development.

- Signs and advertisement according to relevant provisions of this ordinance.

- Off-street parking according to relevant provisions in this ordinance.

c) Bulk and Dimensional Requirements:

-	Minimum Lot Area	800 square meters
-	Minimum Lot Width	25 meters
-	Minimum Lot Depth	30 meters
-	Maximum Coverage	60%
-	F.A.R.	3.6

- Minimum Set-backs:

Front	4 meters
Side	3 meters
Rear	5 meters

- Minimum distance between two buildings on the same lot other than accessory building shall be 4 meter or one-third of the highest building whichever is more.

- Maximum height shall be 6 storeys.

- Exemptions:

Upon a decision of the High Committee for Planning it may be permitted to exceed the specified number of storeys in this district up to 12 storeys provided the lot area is not less than 1500 square meters and floor area ratio not exceeding 5 and height of the facade of the building does not exceed one and half time the sum of the width of street it abuts and the set-back.

4.7.8 G - Government Offices

a) **Uses Permitted by Right:**

- Administrative and governmental offices of different kinds and specialization.
- Professional offices including but not limited to architects, engineers, contractors, artists, printing, typing, drafting, lawyers, accounting, graphic arts and real estate agents.

b) **Conditional Uses:**

- Institutions for human care, including hospitals, clinics, sanitariums, nursing or convalescent homes.
- Business schools for commercial and administrative sciences.
- Publicly owned buildings, and public utility offices, but excluding storage yards and depots.
- Banks, restaurants and hotels.
- Accessory uses which relate to a principal use, such as but not limited to a pharmacy or optical shops or restaurants provided that such accessory use is within the building to which it is accessory, does not have a direct outside entrance for customers.
- Gasoline service station provided not repair or maintenance of automobiles therein.
- Residential units in the upper floors only of buildings.

- Retail establishments in ground storey only which provides different goods and food for daily consumption in addition to books, writing material and optical instruments.
- Signs and advertisements subject to the provisions of this ordinance.
- Off-street parking subject to the provisions of this ordinance.

c) **Bulk and Dimensional Requirements:**

- Minimum Lot Area 2.000 square meters
- Minimum Lot Width 30 meters
- Minimum Lot Depth 70 meters
- Maximum Coverage 30%
- F.A.R. 1.5
- Minimum set-backs:
 - Front 1/5 of street width or 4 meters whichever is greatest.
 - Side 5 meters
 - Rear 1/5 of the lot depth or 5 meters whichever is greatest.
- Maximum height shall be 5 storeys not exceeding 16 meters in height.

4.7.9 C1 - Local Business District

a) **Uses Permitted by Right:**

- Retail food establishments, which supply groceries, fruits, vegetables, meat, dairy products, baked goods, confections or similar commodities for consumption off the premises.

- Poultry shops including slaughtering and cleaning process.
 - Drug and pharmacy stores, clothing, musical instruments, books, writing and typing materials and appliances and gymnastic and sport equipments.
 - Personal services such as barber and bakery shops, shoe repair shops, radio and T.V. repair shops, jewellery shops, laundry, photographic studios and others.
 - Professional offices such as lawyers, accountants, architects, engineers and real-estate agents.
 - Public buildings such as post and telephone offices, libraries and similar public office buildings. (All the mentioned uses are subject to the special permits if needed, according to the applied legislation).
- b) Conditional Uses:
- Restaurants, cafes and other premises which provide food and beverages which are consumed in the same premises.
 - Clothes dry cleaning establishments provided that non-flammable and odorless cleaning fluids or solvents are used.
 - Gasoline service stations subject to restrictions and provisions in the concerned legislation.
 - Residential uses in the upper storeys of mixed use building.
 - Signs and advertisements subject to relevant provisions in this ordinance.

- Off-street parking subject to relevant provisions in this ordinance.

c) Bulk and Dimensional Requirements

- Minimum Lot Area 400 square meters
- Minimum Lot Width 15 meters
- Minimum Lot Depth 20 meters
- Maximum Lot Coverage 70%
- F.A.R. 3.5
- Minimum Rear Set-backs: 4 meters
- Maximum height shall be 5 storeys not exceeding 17 meters.

4.7.10 C2 - High Intensity Business

a) Uses Permitted by Right:

- All uses permitted by right in C1 district subject to same restrictions therein.
- Retail establishments selling household appliances, furniture, carpet and resemblance.
- Banks and other financial institutional offices.
- Offices, public buildings and public utility services.

b) Conditional Uses:

- All conditional uses permitted in C1 district subject to same restrictions.
- Planned shopping center and wholesale establishments.
- Cold-storage establishment for meats, vegetables, fruits and other foods.

- Restaurants, cafes and other premises which offer foods and beverages.
- Institutions for human care, including hospitals, medical clinics and convalescent homes.
- Automobile showroom for new and used automobiles.
- Building supply and equipment stores.
- Trades and arts business, including printing, publishing, photographic reproduction and blue printing.
- Pet shops and poultry shops.
- Gasoline service stations and automobile repair shops.
- Commercial recreation facilities, provided that all uses will be conducted within a completely enclosed building and that such building is located at least 10 meters from any adjacent residential building.
- Automobile laundries provided there is compliance with site development requirements and applied legislation.
- Hotels and similar lodging facilities.
- Servicing and repair of farm implements, motor vehicles and trailers provided that no more than two items be stored on the premises at one time pending repair.
- Manufacturing and processing of light goods establishments which sell their entire output at retail on the premises, provided that not more than two persons shall be employed at any time in the production or processing of goods.

- Veterinary hospitals and clinics.
- Second hand stores.
- Ice selling shops and stores.
- Commercial Planned Unit.
- Signs and advertisements in compliance with relevant provisions in this ordinance.
- Off-street parking in compliance with relevant provisions of this ordinance.

c) Bulk and Dimensional Requirements:

- Minimum Lot Area 400 square meters
- Minimum Lot Width 15 meters
- Minimum Lot Depth 20 meters
- Maximum Lot Coverage 80%
- F.A.R. 5.6
- Minimum Rear Set-backs 4 meters
- Maximum height shall be 7 storeys not exceeding 24 meters.

4.7.11 C3 - Major Street Business

- a) Uses Permitted by Right:
- Retail establishments selling new merchandise including but not limited to gifts, curio, novelty, textiles, garments, sport goods and household effect, electrical appliances, furniture and fixture.
 - Offices, banks and public buildings.

b) Conditional Uses:

- Gasoline service and repair stations for automobiles.

- Restaurants, cafes and casinos.

- Hotels and similar lodging facilities.

- Ice stores.

- Automobile showroom for new and used automobiles.

- Signs and advertisements in compliance to relevant provisions in this ordinance.

- Off-street parking in compliance to relevant provisions in this ordinance.

c) Bulk and dimensional Requirements:

- The same bulk and dimensional requirement applies in the relevant area where the street or part of it is found.

4.7.12 C4 - Planned Shopping Center:

a) Permitted Uses:

- All uses permitted by right or conditional uses in C1 and C2 districts subject to same restrictions, except human care institutions, hotels and residential uses.

- Supermarkets.

- Banks and other financial institutional offices.

b) Site Development Requirements:

All permitted activities and uses shall be conducted entirely within a permanent building, except:

- The parking of customers' and employees' automobiles.

- The loading and unloading of commercial delivery vehicles at a location which shall not interfere with the pedestrian walkways, or the customer parking facilities.

- Gasoline service stations provided that they shall be in compliance with the relevant applied legislation.

Parking Areas:

- The parking space requirements shall be in accordance with the conditions specified in this ordinance. With regard to number of parking places, automobile circulation design and vehicular access to the center so that pedestrian travel from an establishment in the center to any other establishment shall be possible without crossing a vehicular way.

- Automobile circulation design shall provide for access to parking areas in such a way that there shall be no backing up of traffic or difficulties or danger for customers provided all areas accessible to pedestrians or vehicles shall be illuminated.

- All areas accessible to vehicles shall be

paved and maintained so that to provide a permanent, durable and dustless surface and shall be graded and provided with adequate effective drainage facilities for surface water.

- All planned shopping center district, when located in adjacent to an residential or when adjacent to a school, hospital or other public institution shall be surrounded by a strip of open land of 6 meters in width on all sides of the site abutting such districts or developments except the side abutting on a major street which shall be set-back 30 meters from the street right-of-way. No part of such land may be used for any constructions or use except plant material or structural fence or wall.

- The minimum lot area of the center shall be one and half hectare provided that it abuts a major street.

4.7.13 M1 - Light Industrial

a) Permitted Uses (All uses are conditional):

The following uses are permitted provided such are not noxious or offensive by reason of causing or emitting odor, smoke, fumes, vapor, gas dust, noise, vibration or glare and do not constitute a public health hazard by fire, explosion or otherwise, and are not detrimental to public health, to welfare and safety. Precautions should be taken and safety equipments shall be used in order to prevent such hazards in addition to that

these uses are subject to provisions of other relevant applied legislation:

- The production, processing, cleaning, testing, repair, storage and distribution of materials, goods, foodstuffs and other semi finished or finished products from previously prepared material including depots and stores of fertilizers, wood, foodstuffs, bottled liquid gases, and metal casting, forgery carpenter and tin-smith shops. The converting manufacture of aluminium, paper and writing materials, textiles, spinning, weaving, manufacturing, dyeing, clothing, bottling for beverages and date processing and backing are excluded. These permitted uses shall be conducted in enclosed buildings.

- Veterinary hospital.

- Trade or industrial schools.

- Public utility installations and buildings

- Contractor's establishment.

- Storage facilities for building materials, sand, gravel, stone, timber and contractors equipment.

- Accessory uses appartment to the main use of the lot such as:

Incidental offices for management and material control.

Restaurant or cafeteria facilities for employees working on the premises.

Care taker's residence if situated upon a portion of the lot complying with all the requirements of residential districts.

Identification signs referring to principal activities on the premises or to the person or firm performing such activities, subject to relevant provisions of this ordinance.

Other uses of similar character, provided there is compliance with the provisions of this ordinance.

Off-street parking and loading berths in accordance with the provisions of this ordinance.

Bulk and Dimensional Requirements:

Minimum Lot Area	2000 square meters
Minimum Lot Width	30 meters
Minimum Lot Depth	50 meters
Maximum Lot Coverage	50%
F.A.R.	1.5
Minimum Set-backs:	
Front	8 meters
Side	5 meters
Rear	5 meters
Maximum height -	3 storeys.

4.7.14 M2 - Medium Industrial

a) Permitted Uses (All uses are conditional):

The following uses are permitted provided such are not noxious or offensive by reasons of causing or emitting odors, smoke, fumes, vapor, gas, dust, noise, vibration or glare and do not constitute a public health hazard by fire explosion or otherwise, and are not

detrimental to public health, welfare and safety. Precautions should be taken and safety equipment should be used to prevent such hazards. In addition to that these uses are subject to provisions of other relevant applied legislation.

- Uses permitted in M1 district subject to same restrictions specified therein.
- Heating and electric power generating plants.
- Open industrial or storage uses, provided any activity in which materials being processed, stored are located, transported or treated outside a building, shall be enclosed by a permanent maintained fence or wall not lower than the subject use or storage.
- Converting manufacturing for aluminium, paper, writing materials, textile spinning and weaving, manufacturing dyeing, clothing and bottling for beverages and dates processing and packing.
- Junk yards subject to restrictions specified in this ordinance.
- Accessory structures and uses incidental thereto provided there is compliance with the provisions of this ordinance and precaution and safety conditions previously mentioned.
- Off-street parking space and loading and unloading berths in accordance with the relevant provisions of this ordinance.
- Signs in compliance with the provisions of this ordinance.

57

b) Bulk and Dimensional Requirements:

- Minimum Lot Area 5000 square meters
- Minimum Lot Width 60 meters
- Minimum Lot Depth 80 meters
- Maximum Lot Coverage 50%
- F.A.R. 1.5
- Minimum Set-backs:
 - Front 10 meters
 - Side 5 meters
 - Rear 5 meters
- Maximum height - 3 storeys.

4.7.15 S - Institutional

a) Permitted Uses:

- University campus including administrative offices, colleges and high institutions, including auditoriums, laboratories and libraries.
- Playgrounds and recreational establishments.
- Hostel building for students and teachers in the campus including services buildings such as shopping establishments and kindergartens, provided that they provide services only to students and teachers.
- Human care institutions including hospitals, sanitarium and clinics.
- Public utility and services establishments.

b) Site Requirements:

- Planned unit development system is followed in accordance to bulk and dimensional requirements of the premises for the satisfaction of

4.7.16 CUL - Cultural

a) Cultural districts includes buildings and areas of historical and religious significance such as:

- Sayed-Al-Shohada.
- Seven Mosques.
- Masjid-e-Qiblatain.
- Quba Mosque.
- Abar Ali - Miqat Mosque.

b) Site Requirements:

- The area is subject to provisions of the ordinance concerning preservation of areas of historical, cultural, religious and architectural significance.
- Planned unit development system shall be followed in the development of the area which shall satisfy necessary requirements for it including but not limited to:
Museums, libraries, sheds for visitors, parking area and stands for selling gifts to visitors.

4.7.17 HS - Hujjaj Service

a) Uses Permitted (All uses are conditional)

- Camping site for Hujjaj.
- Parking sites for automobiles and transportation vehicles.

44

- Gasoline filling stations.

- Services facilities such as sanitary facilities (bath rooms, lavatories, water closets etc.) and human care facilities.

- Temporary movable shops for selling foodstuffs, providing food and beverages and gift shops.

- Public buildings such as, police station, fire station, water stand pipes, health office and post office.

b) Site Development Requirements:

- The development of the district shall be according to plan of special character.

4.7.18 PU - Public Utilities

a) Uses permitted (all uses are conditional):

- Airport and relevant constructions.

- Electrical power station.

- Sewage Plant.

- Water Installation plant.

- Railway stations including:

Government building such as post office, telephone and telegram.

Kiosk selling news paper and similar items.

First Aid Center.

b) Site Development Requirements:

The development of this district is a plan of special character.

4.7.19 O - Open Space

a) Uses permitted by Right:

- Public parks, playgrounds, children playgrounds, the zoological garden.

- All accessory uses for operation and maintenance of this district.

- Guard places.

- Parking places.

b) Conditional Uses:

- Cafeteria and restaurant providing light meals and gift shops in the area.

- Signs in compliance with the provisions of this ordinance.

4.7.20 A - Agricultural

a) Uses Permitted by Right:

- Different agricultural activities for the production of crops and fruits, planting palm fruit and other trees, and gardening activities in general.

- Green houses, tree nurseries and similar agricultural enterprises.

b) Conditional Uses:

Raising and keeping of small animals and birds such as poultry, cattles, rabbits, sheep, goats, cows, horses and similar livestock on a farm of suitable area provided that:

- Slaughtering and dressing of livestock and small animals and for the sale, use or consumption by occupants of the premises.
- Stables and buildings housing animals shall not be closer to any adjoining lot line than 30 meters. In the event residential housing is located on adjoining lots, then the animals shall be fenced so as to ensure that such animals are confined from all adjoining lots and roadways except when accompanied by owners or rider.
- A special permit shall be needed if the number of poultry exceeds 5 pairs or if the number of sheep and animals exceeds four.
- Cultivating of honey in bee hives.
- Accessory buildings and uses incidental to the uses permitted by right such as, crop stores, fertilizers stores, agricultural machines and equipment stores, guards and care-takers room and irrigation establishments.
- One family dwelling in every farm in which it is permitted to raise and keep housepets domesticated animals, cattles and poultry provided that this use has a non-commercial manner and subject to restriction above-mentioned in this sub-section.

- Home occupation as provided in this ordinance and subject to restrictions specified therein.
- Roadside stands selling products grown on the farm provided that space for parking of customers' vehicles is furnished off the road right-of-way without interference in the traffic.
- Green houses and nurseries selling at retail on the premises.
- Public recreation and playgrounds.
- Riding stables for horses.
- Veterinary hospitals, clinics.
- Institutions for human care, mosques and educational and social institutions upon compliance with the relevant regulations.
- Public services installations.
- Public utility installations including water tanks, water pipes for human consumption.
- Signs and advertisements subject to provisions of this ordinance.
- Cemeteries.

c) Bulk and Dimensional Requirements:

- The bulk and dimensional requirements for the residential district shall be applied in agricultural district for residential buildings permitted therein.

4.7.21 SP - Special Use (Defence and National Guards)

This district is devoted for the special use of Defence Ministry and the National Guards.

4.7.22 W - Wadi District

a) Permitted Uses (all uses are conditional)

- Recreational uses conducted in open space or temporary installations other than buildings and constructions such as tents or temporary shelters.

- Reservoir, barrages, drains and other structures for reservoing and storing torrent and flood water.

- Agricultural uses in sites where this use is possible and permitted.

4.7.23 M - Mountain

a) Uses Permitted by Right:

- Defence constructions and accessory buildings.

b) Condntional Uses:

- Light constructed facilities providing light meals and gifts.

- Parking areas.

4.7.24 B - Baqiah (Cemetery)

a) Permitted Uses:

- Graves.
- Fence Wall.
- Guard rooms.

4.8 OFF-STREET PARKING

In all district off-street parking facilities are provided for the parking of motor vehicles of occupants, employees, guests and owners of buildings on the erection or extension of buildings or converting the existing uses.

The location and capacities of these parking facilities should be subject to the following conditions:

4.8.1 Location of Parking Space

The location of off-street parking spaces are determined as follows:

- a) Parking for dwellings: The off-street parking facilities required for all dwellings shall be on the same lot or parcel of land except as provided for in this ordinance or the PUD.
- b) Parking for other uses: The off-street parking facilities for all uses other than residential may be on any part of the same lot as the buildings they are intended to serve or on another lot which shall be within 150 meters of the buildings they are intended to serve and provided the approval of Al-Medina Al-Munawara Planning and Development Department.

c) Collective off-street parking facilities may be provided for two or more buildings or uses, but the total of such collective off-street parking facilities shall not be less than the sum of the individual uses computed separately and provided the approval of Al-Medina Planning and Development Department.

d) The ins-outs of off-street parks for parking ten or more vehicles should be 15 meters at least distant from the street line.

4.8.2 Parking Capacities

In all districts for all off-street parking facilities parking spaces are determined on the basis of the area required for each car. Each 25 m² of unobstructed standing or manoeuvring area shall be considered one parking space. In any parking facilities containing five or more spaces 16 m² may be considered a parking space i.e. within the limit of one-fifth of all the spaces.

4.8.3 General Conditions

a) Parking areas shall be regarded to provide convenient access and proper exit. The parking area for 4 or more cars shall be paved with a hard suitable material.

b) When units of measurement determining the number of required parking spaces result in a fractional space, any fraction to and including one-half shall be disregarded and fractions over one-half shall require one parking space.

c) In the case of a use not specifically mentioned, the requirement for a use which is mentioned and which is most similar to the use not listed shall apply.

d) Parking facilities existing at the effective date of this ordinance shall not be reduced below the requirements set forth in this ordinance.

e) Whenever a use is increased in floor area, or when interior building modifications result in an increase in capacity for any premises use, additional parking shall be provided in the proper ratio to the increase in use.

4.8.4 Parking Space Requirements

The number of required off-street parking spaces in all districts for every use shall be provided in accordance with the following:

Use	Required Parking Space
One Family Dwelling	Not required
Two Family Dwellings	Not required
Multiple Family Dwellings	One space for each dwelling unit
Hotels	One space for each two rooms plus one space for every 10 employees.
Hospitals and Sanitariums	One space for each 4 beds, 1 space for every doctor or director plus 1 space for every 10 employees.

Use	Required Parking Space
Clinics and Dispensaries	2 spaces for every doctor, 1 space for every 4 employees.
Local Mosques	1 space for every 25 square meters of the total pray area.
Gumaa (Friday) Mosques	1 space for every 15 square meters of the total pray area.
Elementary Schools	1 space for every 3 employees.
High School for Boys	1 space for every 3 employees plus one space for every 25 students.
Colleges and High Institutes	1 space for every 3 employees plus 1 space for every 10 stu- dents.
Playgrounds	10 spaces and for football grounds 50 spaces.
Libraries, Museums, Post Offices	1 space for each 100 m ² of the floor area plus 1 space for every 4 employees.
Banks and Professional Offices	1 space for every 30 m ³ of the floor area.
Institutions and Public Offices	1 space for each 20 m ² of the floor area.
Clothes, furniture, cars and engines (wholesale)	1 space for each 20 m ² of the floor area.
Barber Shops	2 spaces for each seat.
Restaurants	1 space for each 20 m ² of the floor area.
Automobile Service and Repair Garages	1 space for each 20 m ² of the floor area.
Retail Shops	1 space for each 50 m ² of the floor area.
Supermarkets, self- service food stores and wholesale shops other than mentioned above.	1 space for each 100 m ² of the floor area.

Use	Required Parking Space
Industrial or manufacturing establishments including research and testing labora- tories, creameries, bottling works, printing and engrav- ing shops.	1 space for every 3 employees or 1 space for each 50 m ² of the floor area which is more.

4.8.5 Off-street Truck Loading

Off-street truck loading berths shall be provided as accessory to retail, wholesale, office and industrial buildings. The capacity of such berths depends on the nature of the activity and according to the estimation of the authority concerned. The following conditions have to be observed:

- a) Each place should be easily accessible from a street without interference with traffic.
- b) Space allocated to required off-street loading berths shall not be included in required off-street parking area nor shall the off-street loading berth be used for normal vehicle repair or service work.
- c) All required loading berths shall be on the same lot as the use served, but if such berths abut a residential district they shall be suitably screened or fenced from view according to the discretion of the concerned authority.
- d) No loading berth shall be located in a required side yard. If located in a required rear yard the berth shall be open to the sky.

e) Every building of the type described below which is hereafter built, relocated, or structurally altered to the extent of more than 50% addition in floor area shall provide an off-street truck loading berth in accordance with the following:

- A building whose dominant use is handling and selling goods at retail shall provide at least one loading berth if it has between 3000 to 10,000 square meters of floor area and one additional berth for each additional 10,000 square meters.
- Manufacturing, repair, wholesale trucking terminal or warehouse uses shall provide at least one loading berth if they have between 1,000 and 10,000 square meters in floor area and one additional berth for each additional 10,000 square meters.
- Other buildings not listed above but having over 1000 square meters of floor area shall provide one berth. This includes offices and hotels.

4.9 PLANNED UNIT DEVELOPMENT

4.9.1 Definition

In the context of this ordinance planned unit development means any contiguous tract of land to be developed primarily for residential purposes. The area should not be less than 4 hectares and must contain 200 dwelling units at least.

A planned unit development may be developed for commercial purposes as illustrated in this ordinance. The P.U.D. may be exempted from certain provisions of this ordinance or subdivision regulations with adhering to the conditions and terms of the ordinance.

4.9.2 Objectives

The following objectives shall be considered in an application for a special use permit for planned unit development:

- a) To provide a more desirable living environment by preserving the natural character of fields, trees, ponds, brooks, hills and similar natural resources
- b) To encourage provision of open and recreational spaces at central locations within reasonable distance of the residential unit.
- c) To encourage developers to use a more creative and imaginative approach in the development of residential areas.
- d) To provide for more efficient and aesthetic use of open areas by allowing the developer to reduce development costs through the bypassing of natural obstacles in the residential site.
- e) To encourage variety in the physical development pattern of the district.

4.9.3 Permit Conditions

An application for a special use permit shall comply with the following conditions to qualify for consideration as a planned unit development:

- a) The site shall be not less than 4 hectares in area, shall be under the control of one owner or a group of owners, shall contain not less than 200 dwelling units and shall be capable of being planned and developed as one integral unit.
- b) The site shall be located within the districts of that permitted use.
- c) The site shall be provided with water and sanitary disposal system or will be provided with such utilities in the course of development.

4.9.4 Uses that may be Permitted

The following uses may be permitted within a planned unit development:

- a) All uses permitted in the districts where the site is located.
- b) The establishment of a commercial center.
- c) Recreation and open spaces.

4.9.5 Open Areas

For each area of land gained through the averaging or reduction of lot sizes, equal amounts of land shall be provided in open space. All open space, tree cover, recreational area shall be either set aside as common land for the sole benefit use and enjoyment of the present and future home owners within the development or may be dedicated to the public as park land for the use of the general public.

4.9.6 Open Space Ownership

The High Planning Committee in Al-Medina Al-Munawar shall determine which is appropriate and recommended one of the following as part of its approval of a special use permit for a planned unit development:

- That open space land shall be legally conveyed from the tract owner or owners to a home owners association or other similar non-profit establishment, provided that suitable arrangements have been made for the maintenance of the land and that an open space easement is made to assure that it remain public open space.
- That open space land may be dedicated to the public for public park or recreational purposes by the tract owner or owners.

In any case the land shall conform to the Master Directive Plan, the Execution Plans, and that it will be readily available to and desirable for public use, development and maintenance.

4.9.7 Group Parking

In a planned unit development group parking may be permitted provided that each individual dwelling unit has an unobstructed and irrevocable right of access to the respective parking space provided for that unit, and in no case may such group parking be located at a distance greater than 100 meters from the units served.

4.10 SIGN REGULATIONS

4.10.1 Definition

A sign or advertisement means any plate or framework, or fence, or place or device by which anything is made known through writing, engraving, letters or illustration, whenever:

- a) It is affixed by itself or represented directly or indirectly upon a building, structure or land.
- b) It is meant to draw attention.
- c) It is visible from any public way.

4.10.2 General Conditions

- a) It is prohibited to make advertising signs which direct attention to a business, profession, commodity, service conducted, sold, or offered elsewhere than upon the same lot in the residential districts.
- b) The following signs and advertisements are exempted from the provisions of this ordinance.

- Signs of government offices including traffic control and street crossing signs, railway level crossing signs and notices specified by law.

- Information and slogans of charity organizations, educational and religious societies.

- Temporary signs of publicity campaigns administered by circles mentioned in the previous paragraph.

- Signs and plates advertising architects or contractors when affixed on the site of the structure provided it is not more than 2.4 square meters in area.

- Signs inside window shops advertising commodities, professions or industries related to the trade, industry or profession exercised in that shop.

- Direct signs on the means of transportation for the establishment, factory or commercial store when the sign is concerned with the type of trade or brand of commodity made by it.

- Direct signs on the equipment and appliances advertising itself or its purpose such as fuel items or refrigerators selling bottled or canned beverages or others.

- Direct signs on the tins or packages or alike used for commercial, industrial, or hygienic purposes or for human consumption even if affixed on the site of the establishment.

Advertisements and temporary fixture set up on public occasions such as religious or national occasions or cultural, social or sport festivals provided a prior approval of the authorities is granted and in compliance with the conditions and duration fixed. The signs are to be cleared three days after the expiry of the time fixed.

- 53
- c) If the advertisement is of two sides where the distance between them is not more than 40 cms. it is considered one advertisement. As for the measurement of the advertisement area each side is measured separately and is considered in area a separate advertisement.
- d) In all districts advertisements are prohibited on:
- Archeological buildings, mosques and the fences around them.
 - Memorials, publicity structures on the park or land for public use on the bases and fences related to them.
 - Erected or maintained upon trees, painted or drawn on rocks or other natural features.
- e) Signs shall not be allowed in any district which are:
- Obsolete.
 - Illegal under state laws or applicable regulations or public manners.

- Not clean and in good repair.
- Not securely affixed to a substantial structure.
- Which attempt to interfere with or resemble any official traffic sign, signal or device.

4.10.3 Signs and Advertisements permitted in various Districts

- a) Residential districts:
- Name plate containing name or address of occupant or of permitted occupation with maximum size of 30x40 cms. There shall be a maximum of one to a lot with no flashing lighting.
 - Identification for multiple dwellings and residential uses containing the name of permitted use, name and address of building. Such size shall have a maximum size of 1.20 m² on any lot containing fewer than 100 dwelling units. The size may be increased by 1.20 m² for each additional 100 dwelling units. There shall be a maximum of one to a lot with no flashing lighting.
 - Bulletin boards for hospitals, schools or other public or semi-public uses. Such signs shall have a maximum size of 2.40 m². There shall be a maximum of one to each street frontage with no flashing lighting.
 - "For Sale" or "For Rent" signs with a maximum size of 1.20 m². There shall be a maximum of one to a lot with no flashing lighting.

- Accessory business signs for permitted non-conforming uses, consisting of a sign which directs attention to a profession, business, commodity, service. such signs shall have a maximum of 1.20 m². There shall be a maximum of one to a lot with no flashing lighting.

- Signs offering the sale of lots in a subdivision with a maximum size of 2.40 m².

- Sign designating entrance to or exit from a parking area. There shall be a maximum of one for each entrance and exit.

- Temporary work signs designating contractors, mechanics, builders, and artisans during the period they are working on the lot with a maximum size of 1 20 m². There shall be a maximum of one to a lot with no flashing lighting.

No sign shall extend above the ground floor or more than 6 meters above curb level whichever is less, and no sign shall project across a property line more than 30 cms.

b) Business and industrial districts:

- Signs permitted in the residential districts are subject to the same conditions.

- Advertising signs which direct attention to a business, profession, commodity or service conducted, sold or offered upon the same lot with a maximum total area of 20% of the street frontage.

- Advertising signs which direct attention to a business, profession, commodity or service conducted, sold or offered elsewhere than upon the same lot with a maximum size of 24 square meters.

- Signs in the abovementioned two paragraphs may be non-illuminated, illuminated or flashing.

c) Agricultural districts

- All signs permitted in the residential districts and are subject to the same conditions.

- One non-illuminated sign advertising the sale of the farm products not to exceed 5 square meters and placed no closer to any street line than 5 meters

- Identification plate identifying the owner and/or activity of the farm.

- One sign placed flat on the wall of a legal non-conforming use not to exceed 120 m².

d) Major Street Business Districts

- All signs permitted in business districts subject to the following conditions.

- Signs shall be placed flat against the main building or parallel to the building on a canopy and may face only public street or parking areas which are part of the development.

- A sign shall not exceed in height 20% of the building height with two meters maximum height and 20 m² in area.
- Signs may be illuminated but not flashing.
- Signs shall not project more than 30 cm.
- Signs shall not interfere with traffic signals and movement.
- One free standing sign structure may be utilized provided such sign is set back 6 meters at least from any public street line and does not exceed height of 6 meters may increase to 8 meters high if it is 8 meters away from the street line and should meet the safety requirements for the way, vehicles and pedestrians.

e) Shopping center districts:

- Signs permitted in business districts and highway service districts with the same conditions subject however to the following limitations:

Signs shall be located on the front or rear frontage of the building and not on its sides.

Signs shall be so designated to be integrated and harmonious to the shopping center and to the other signs within the center.

4.10.4 Technical and Construction Conditions of Signs

Without prejudice to the conditions of signs for the various districts, fences, plates, free standing structures and other devices for advertising should fulfill the

following specifications:

a) Fences, plates, free-standing structures and advertising devices erected on the ground surface:

- The structures should be securely affixed into the ground and the embedded part of the structure into the ground should not be less than one meter. In case of wooden metal structures they shall be painted by a bitumine or a similar material.

- The height of the fences, plates, structure around the vacant land shall not exceed 6 meters from the curb level and if the purpose is not to fence the vacant land from all sides, a part should be left open with half a meter height to show what is behind the fence. This part may be covered with a grid of wood or any other material provided that the hallow part is not less than half of its area. If the sign is 8 meters away from the street line, its height may be 8 meters.

- The plates or structures should be fixed in the walls by stirrups. The part embedded in the wall should be 10 cms. at least. Wooden wedges should not be used for this purpose.

b) The design fixture of the sign should comply with the technical and engineering standards. It should not interfere with the openings of doors and windows, means of escape and the pipes of water and sewerage and the air-conditioning devices.

55

- The signs, its fixture, framework or structure should not project beyond the street or building line except as follows:

5 cms. from the street or building line in the range of 3 meters height from the curb level.

5% of the width of the street above 3 meters up to 4 meters from the curb level and with a maximum of 1.5 meter.

10% of the width of the street in more height with a maximum of 1.5 meter.

- Any part of the sign should not be higher than 2 meters from the top roof on the street frontage. In case the sign is fixed on the frontages of arcades the projection of the sign with its stands or stirrups should not exceed one quarter of the width of the road provided it does not exceed 50 cms. and its lowest part should not be lower than 3 meters from the curb level. Signs are prohibited on the openings of the arcades and no projected signs are permitted on arcades which are without outside pavement.

c) Advertising signs on the roof of buildings:

In the business districts, industrial districts and highway service districts signs may be permitted on the roofs of buildings provided the approval of the High Planning Committee and the submission of a detailed design for the sign and its fixation. The following conditions should be observed:

- The height of the solid part of the advertising sign should not exceed 5 meters. In case of conducting the sign on a hollow fixture the height including the stands should not exceed 20 meters.

In the abovementioned two cases the set-backs of the sign from the building line should not be less than one meter.

- The stands and frames of the sign should be made of non-inflammable material.

- The sign, its stands and frames should be located in such a way as not to cause harm to the beneficiaries of the building. It should not also interfere with the installations of public utilities or escape devices.

- The design, framing or fixture of the sign should be according to the technical standards, to be wind resistant and not to cause any harm.

d) Advertising signs fixed on lighting poles:

On the approval of the High Planning Committee it may be permitted to locate signs on lighting poles in certain streets in the business and industrial districts provided the lowest point of the sign is not less than 4.5 meters from the pavement surface, the sign is not more than 125 cms. and the projection does not go beyond the pavement curb line or edge.

- e) Electric signs: Electric signs may be permitted in certain districts provided they meet the previous conditions in addition to the safety and fire proof measures described by the authorities concerned.

4.11 SUPPLEMENTARY REGULATIONS

4.11.1 Prior Building Permits

Any building permit issued prior to the effective date of this ordinance shall be valid even though not conforming to the provisions herein, provided that construction is commenced within ninety days from the date of issuance and that the entire building shall be completed according to the plans filed with the permit application, within one year from the date of issue.

5 4.11.2 Lot Frontage

All lots established after the effective date of this ordinance shall have a frontage on a public street except in the case of an officially approved group housing development, the buildings in the PUD established in compliance with this ordinance, the permit and conditions prescribed by the High Planning Committee in Al-Medina Al-Munawara. Any lot established before the effective date of this ordinance without any frontage on a public street shall not be occupied without access to a street provided by an easement no less than 6 meters wide. No more than one lot may be served by such an access route.

4.11.3 Required Water Supply and Sanitary Sewerage Facilities

No building for human occupancy shall be erected altered upon any lot or premises and used in whole or in part for dwelling, business, industrial or recreational purposes unless it shall be provided with a safe sanitary and potable water supply and effective means of collection treatment and disposal of human, commercial or industrial wastes fulfilling the conditions required by Water and Sewerage Authority at Health Department.

4.11.4 Temporary Buildings and Structures

The temporary buildings and structures used as a construction facility for said principal building will not be used for residential or dwelling purposes and its use shall terminate thirty days after completion of the principal building or buildings.

4.11.5 Fences - Walls and Screens

No fence, wall or structural screen, other than plant materials, shall be erected on any residential property higher than 3 meters, nor shall they be placed beyond the front building line.

4.11.6 Exception to required lot area for Residential Districts

Any residential lot recorded prior to the effective date of this ordinance may be used for any permitted use in the district even though the lot area and/or dimensions are less than those required for the district in which the lot is located provided:

- a) That the other requirements of the district are met.
- b) That no adjacent land or lot is owned by the owner of the lot in question.
- c) That the lot is too small to provide the minimum open space required.
- d) That any lot shall not be less than 10 meters at the street line.

4.11.7 Accessory Buildings

- a) No accessory building exceeds in area 30% of the rear yard area.
- b) In residential districts no accessory building occupies any part of the front yard except the door keeper's room which should not be more than 9 square meters.
- c) No accessory building in the rear front shall be closer than 2.40 meters to the lot line.
- d) The distance between the accessory building and the lot line in the side yard in residential districts should not be less than the set-back required in residential districts.
- e) On a corner lot no accessory building shall be closer to the side street lot line than the side yard set-back of the principal building on the lot. Where the rear line

of a corner lot coincides with the side line of an adjoining lot in a residential district, an accessory building shall not be closer than 2.40 meters.

4.11.8 Buildings and Structures Permitted to Exceed Height

- a) Ornamental elements such as minarets, domes and ornamental towers.
- b) Chimneys and smoke stacks, water tanks, elevators and staircases, penthouses, radio towers, TV antennas and cooling towers.
- c) Commercial free standing towers, constructed in compliance with the conditions laid down by Amanat Al-Medina and approval of the concerned authorities.
- d) Radio and TV towers for the occupants of the principal building provided it is not more than one and half of the height specified for the district.

Such exceptions are subject to the following limitations:

- No part of the structure which exceeds the permitted height will be exploited for commercial or human use.
- The height does not exceed the requirement of the function as deemed by the concerned authority and shall not be risking to aviation.

- Its floor area should not exceed 20% of the total floor area of the structure.

4.11.9 Permitted Yard Projections

The following structures may be permitted and shall not be subject to yard requirements:

- 59
- a) Paved uncovered areas for sitting such as paved terraces, pathing and entrance stairs provided the highest finished elevation of the paved area is not over one and half meter above the average surrounding finished ground grade. Paved areas may have an open railing or fence not over one meter high and may have visual screen fences or walls not over 2 meter high and enclosing more than one-half the premises of the paved area.
 - b) Special decorative elements such as cornices, sills, plinthes, chimneys, gutters may project into any yard a maximum of 75 cms.
 - c) Escape exits outside stairways and balconies may project into the yard at a maximum of 1.5 meter not exceeding 20% of the width of the yard.

4.11.10 Projections Permitted in the Street

The following works and structures are permitted in the buildings abutting the street without front setback:

Ornamental elements such as cornices, sills

and thresholds provided the projection is no more than 0.40 meter and the plinths 0.15 meter.

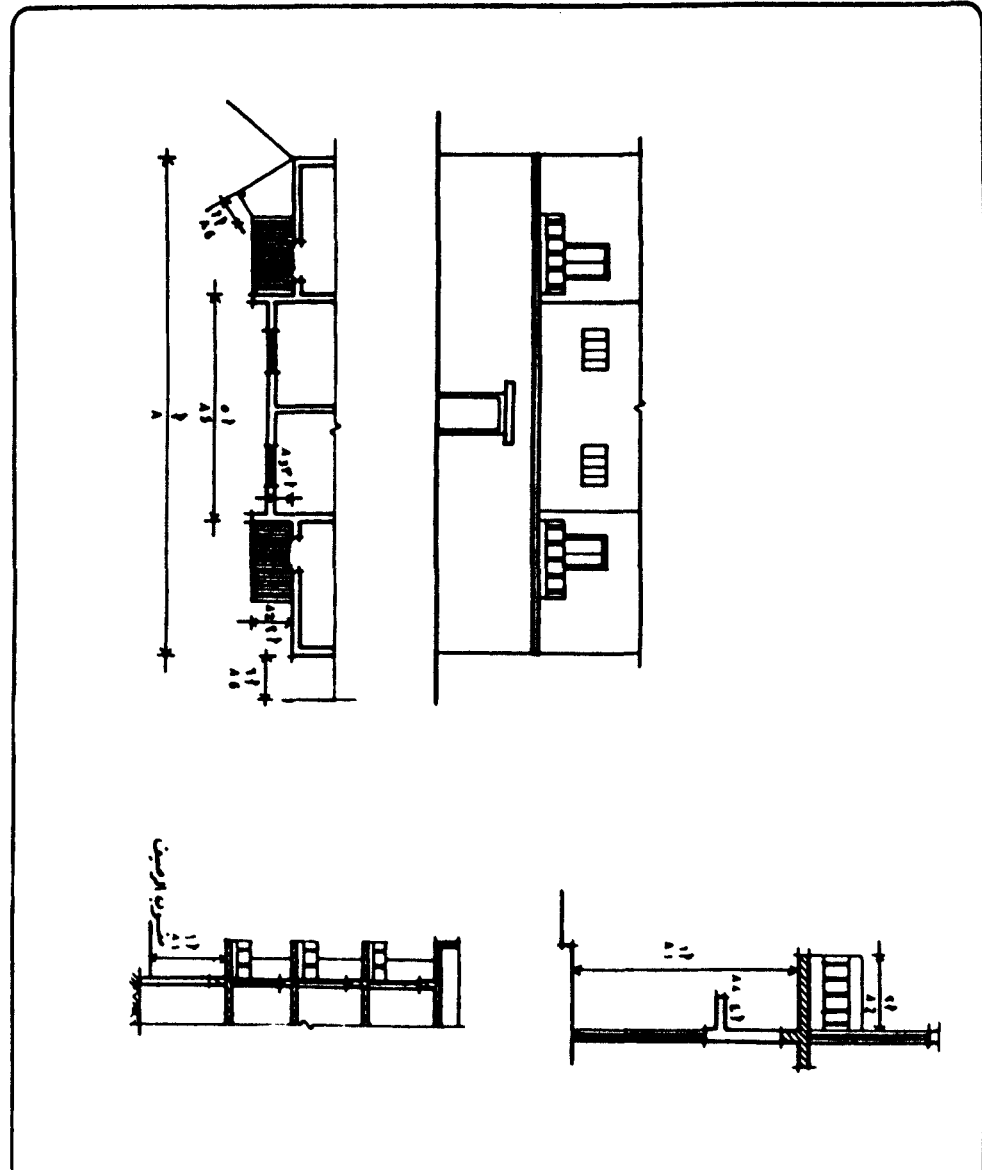
- b) Drainage pipes and gutters provided the projection is no more than 0.50 meter.
- c) Balconies with a maximum projection of 10% of the street width and no more than 1.25 meter provided it is 4 meters from the street level and 1.5 meter at least far from the adjacent lot line. If the fronts of the two adjacent lot does not make a straight line, this distance shall be measured from the bisection of the angle between the two fronts.
- d) Baye-window or "Rouchan" with a projection of no more than 5% of the width of the street at a maximum of 1.25 meter and not less than 4 meters high from the street grade and at least 1.50 meter far from the adjacent lot line provided that the same provision mentioned in the previous item concerning fronts which do not make a straight line and that the length of such projection shall not exceed half the length of the front lot line on the street.
- e) The High Planning Committee in Al-Medina Al-Munawara may ban the projections specified in parag-aph (c) and (d) in certain streets. (Fig.3).

4.11.11 Transition Zones

- a) Establishment of transition zones and its purpose: To accommodate a natural tendency for a gradual transition between two distinctly different kinds of land use activities, there are hereby established transition zones at the periphery of certain commercial and industrial districts. Within these transition zones restrictions for residential districts are modified within a specified distance to the less restrictive requirements of a commercial or industrial district
- b) Limits of transition zones Certain structures and uses specified herein may be permitted in the residential districts within 30 meters of the commercial or industrial districts provided that any non-residential use allowed within the transition zone shall be permitted only upon the issuance of a special use permit from the Planning and Development Department in Al-Medina Al-Munawara.
- c) Uses permitted in the transition zones:
- All uses permitted in residential districts.
 - Personal services such as dress making, hair dressing, home occupations, provided such activity is carried on by the resident of the dwelling unit in the principal building.
 - Simple commercial activity.
 - Offices of physicians, attorneys and engineers.
 - Off-street parking lot upon compliance with the provisions related to this.

3

LEGEND	
A: LENGTH OF FRONTAGE	
A1: NOT LESS THAN 6 METERS	
A2: NOT MORE THAN 18% OF THE STREET WIDTH AT MAXIMUM OF 135 cms	
A3: NOT MORE THAN 5% OF THE STREET WIDTH AT MAXIMUM OF 135 cms	
A4: NOT MORE 1/2 A	
A5: NOT LESS THAN 150 cms	



ZONING ORDINANCE PROJECTIONS ONTO STREET	
Source	Date
CONSULTANT (7/102)	No. 3

These zones are subject to the provisions related to yard, set-backs, heights, area, requirements of building bulk, the off-street parking, and the signs in residential districts stated in this ordinance.

4.11.12 Transition requirements for business or industrial districts that adjoin a residential district

The following uses shall be no closer than 30 meters to any residential district except as otherwise provided:

- a) Gasoline service or filling stations.
- b) Automobile repair and public garages.
- c) Animal hospital or clinics.
- d) Laundry or dry-cleaning establishments.
- 19 e) Storage facilities for live poultry.
- f) Poultry killing or dressing.

4.11.13 Junk Cars

No one is allowed to store or locate or permit the location or the storage or desertion of a junk car or any part thereof except in a completely closed structure or building or on a site for this purpose and in compliance with the provisions regulating this issue.

4.11.14 Junk Yards

Junk yards shall be established on designated sites in the industrial districts provided:

- a) Uses shall be in compliance with the laws and regulations related to this.
- b) The site shall be at least 1/2 hectare.
- c) A solid fence or wall at least 2.5 meters in height shall be constructed around the periphery of the site to screen the site.
- d) All activities shall be confined within the enclosed area. There shall be no piling of material above the height of the fence or wall.
- e) All enclosed areas shall be set-back at least 30 meters from any front street or property line. The front yard set-back may be planted with trees, grass or shrubs as deemed by the concerned authority in Amanat-Al-Medina.
- f) No open burning shall be permitted and all industrial processing involving the use of equipment for cutting, compressing, or packing shall be conducted within an enclosed building.
- g) If the yard look onto a residential or agricultural district a transition strip at least 60 meters in width shall be provided between the enclosed area and the adjoining property. The side yard set-back shall be landscaped by shrubs, grass or fences to screen the site as deemed necessary by the concerned authority in Amanat Al-Medina.

4.11.15 Home Occupations

Customary home occupations may be conducted in residential structures provided that the following conditions are observed:

- a) No more than one-half of the floor area of the dwelling shall be devoted to such use.
- b) Home occupations shall be conducted indoors and that there shall be no external evidence of such occupation or use except a small announcement or identification sign in accordance with the provisions of this ordinance.
- c) Home occupations shall be conducted solely by the occupant of the residential dwelling within the confines of the residential dwelling.
- d) Home occupation practice shall not cause disturbance, nuisance or hazards and shall be subject to the regulations governing such occupations.

4.11.16 Arcades

- a) The applicants for building in the street and thoroughfares where arcades (covered paths) have to be established as defined by the zoning map shall construct arcades in the fronts of their buildings abutting these streets and thoroughfares. The ground floor of these buildings shall set-back from the street line the distance fixed for each street with a minimum distance of 3 meters provided:

The design and construction of the arcades shall be in compliance with the form and type determined by the concerned authority in Amanat Al-Medina and in accordance with the form prepared for this purpose so that all the arcades in a certain street assumes a unified form. The applicant can have a look at the form filed in the concerned department.

- b) The height of the arcade from the finished grade of the path underneath will be fixed at 4 meters. The department concerned may determine more height to construct a mezzanine. The structures should not project beyond the arcade except as follows (see Fig. 3)

Ornamental elements and the balcony windows provided the projection is 40 cms. and at a height not less than 240 cms. from the finished grade of the pavement.

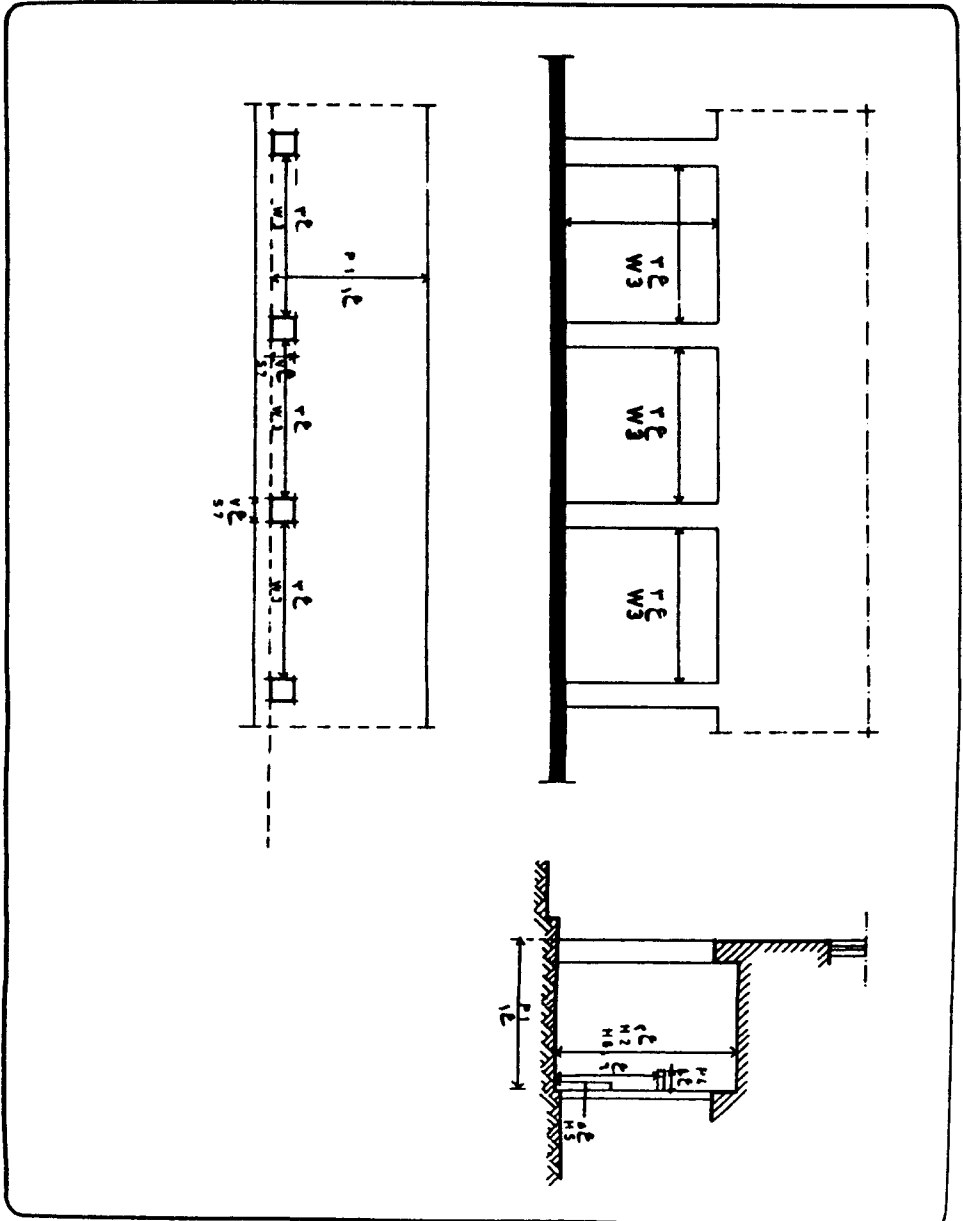
Plinth, sills and column projections shall be not more than 15 cms.

Signs defined in the district in compliance with the provisions of this ordinance.

The air condition equipment, water supply pipes, drainage stacks and gully traps inspection shall be in compliance with the conditions determined by Al-Amanat.

- c) The distance between the columns of the arcades shall be the same in the one front and no less than 4 meters and no more than 6 meters if possible. In case it is not possible the length of the front shall be

LEGEND	
THAN MADE PROJECTION	
HIGHER LESS THAN 4 M.	
HIGHER MORE THAN 4 M.	
HIGHER MORE THAN 4.5 M.	
HIGHER MORE THAN 5 M.	
HIGHER MORE THAN 5.5 M.	
HIGHER MORE THAN 6 M.	
HIGHER MORE THAN 6.5 M.	
HIGHER MORE THAN 7 M.	
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- d) The columns of the arcades shall be in a square or rectangular form unless otherwise fixed by the department concerned, provided the side of the columns is no more than 60 cms. and not less than 40 cms. Al-Amanat may determine fixed dimensions for the columns on the fronts of the street sides.
- e) Concerning the lots which are subject by building regulations to building set-back from the lot line, these lots are exempted from the front set-back in all floors with the exception of the set-back determined for the arcades.
- f) Amanat Al-Medina may permit, outside the arcades line, the projections determined within the arcade line in certain streets and in compliance with the conditions stated in that connection.
- g) The space beneath the arcade shall be all the time open for public passage. No occupancy or obstructions shall obstruct the passage in the gallery. Amanat Al-Medina has the right to supervise it and see to its cleanliness.

4.11.17 Amendments of the Ordinance

Petition of amendment: This ordinance may be amended pursuant to the law. Amendments may be initiated by the High Planning Committee in Al-Medina Al-Munawara, or by petition of one or more persons having an interest in the property to be affected by the proposed amendments.

- b) Procedure: Petition of amendments shall be submitted to Al-Medina Planning and Development Department containing all data and justifications for the amendment. The petition is settled according to the procedures followed in the case of variances stated in this ordinance and in compliance with the law. The amendments decided shall be registered and filed together with the date of amendments and its effective date.

4.11.18 Penalties and Remedies

The penalties and the remedies of violations will be in compliance with the law.

4.11.19 Adoption of the Ordinance

This ordinance shall be adopted according to the law

4.11.20 Effective Date

This ordinance will be effective 20 days after its publication according to the law.

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5. LAND SUBDIVISION REGULATIONS

5.1 TITLE

These regulations shall be known as the "Land Subdivision Regulations of Al-Medina Al-Munawara".

5.2 OBJECTIVES

Land subdivision is considered to be the first step in the process of urban development. The arrangement of plots, the classification of their uses i.e. residential, commercial, industrial, the location of schools, public parks and roads - determine to a large degree the conditions of health, safety and welfare in addition to the economic aspects. The standards and conditions of subdivision aim at safeguarding public interest such as the provision of enough light and ventilation for the dwelling, public utilities and amenities which in turn keep up physically healthy and visually pleasing environment.

The Land Subdivision Regulations aim at realising the following objectives:

- Implementation of the Master Directive Plan.
- Preservation of natural local environment and prevention of premises causing inconvenience.
- To make the subdivision schemes in conformity with the actual needs of Medina and to be in the right location and direction.

The provision of these subdivisions with public utilities by the Al-Amanat or by the developers. The provision of essential utilities to the town or some parts of the town is the task of the Al-Amanat.

Provide the best possible design for tract.

Establish adequate and accurate records of land subdivision.

5.3 DEFINITIONS

As used in these regulations the words and phrases below will be meant as follows:

5.3.1 Subdivision

The subdivision of a parcel or any area of land into two or more plots to dispose of, or develop it immediately or in the future and enables

the establishment or deduction of a public or private road or easement of public passage or for piping.

To undertake the aforementioned process in a land previously subdivided.

5.3.2 Subdivider

Any person, establishment, firm, corporation, consortium who undertakes the land subdivision as defined under Section 5.3.1.

5.3.3 Preliminary Subdivision Plan

The map or plan of a subdivision showing the character and proposed layout of the land to be subdivided in sufficient details to indicate its conformity with the provisions of these regulations and the physical plans of Al-Medina.

5.3.4 Final Subdivision Plan

The map or plan of a subdivision in its final form indicating all scales, definitions and data about the roads, plots, blocks, areas for public utilities and services together with the necessary documents.

5.3.5 Physical Plans

The Master Directive Plan, the Execution Plans, the Action Area Plans and Zoning Plans

5.3.6 Public Road

An area or space used for different kinds of passage intended for public use.

5.3.7 Private Road

A passage constructed by a person to give him access to his property and not open for public use.

5.3.8 Street

Any public space or right of way which affords the primary means of access to abutting property out of the surrounding properties.

5.3.9 Main Street

An arterial street designated as a major street on the plans.

5.3.10 Secondary Street

A street, whose primary purpose is to provide access to adjacent properties and which is designed so that its use by arterial traffic will be discouraged.

5.3.11 Collector Street

A secondary street which collects traffic from other secondary streets and serve as the most direct route to main streets or a community facility.

5.3.12 Cul-de-sac

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A secondary street having one end open to vehicular traffic and having one closed end terminated by a turnaround.

5.3.13 Service Road

A secondary street auxiliary to and located on the side of the main street for service to abutting properties and adjacent areas and for control of access.

5.3.14 Easement

A passage established through blocks granted by the property owner to another person or agency to use for a limited purpose such as passage and lines of public utility.

5.3.15 Block

A parcel of land designated for urban purposes, surrounded by public roads, streets, highways or parks, water or drainage channels.

5.3.16 Lot

A subdivision of a block or other parcel intended as a unit for the transfer of ownership or for development.

5.3.17 Corner Lot

A lot located at the intersection and abutting two or more streets.

5.3.18 Double Frontage Lot

A parcel of land which extends through a block from street to street and has two non-intersection sides abutting on two or more streets.

5.3.18 Reverse Frontage Lot

A double frontage lot of which the secondary front abuts a main road and the primary means of ingress provided on a secondary street.

5.3.20 Building Line - Setback Line

A line or lines behind the boundary line of a street beyond which no building can be constructed from the side of the street.

5.3.21 Protective Covenants

A set of conditions and obligations attached to the title deeds of the lots. It implies various acts of easements concerning owner and buyers with the objective to ensure general welfare, aesthetic appearance, health and architectural character.

5.4 JURISDICTIONS OF THE SUBDIVISION REGULATIONS

The regulations are applicable within the physical boundaries of Al-Medina. The Municipal Council, however, at the request of Al-Medina Planning and Development Department and on the approval of the Ministry of Municipal and Rural Affairs may extend the application of those provisions to a distance not more than 10 Kms. beyond the physical boundary of Medina as defined by the Master Directive Plan.

5.5 SUBDIVISION APPLICATION PRIOR TO THE EFFECTIVE DATE

The provision of these regulations are applicable to all the new subdivisions not approved till the effective date of new regulations. The regulations for the subdivision plans approved before the official approval of the Master Plan can be modified in order to be adjusted within the framework of the Plan. This amendment is effected by a decree from the Municipal Council after the consent of the High Planning Committee of Al-Medina.

5.6 APPROVAL OF SUBDIVISION PLANS

A subdivision plan shall not be published or implemented unless it is approved in accordance with the provisions and conditions of these regulations. No amendment or change can be introduced to an approved plan without the fulfilment of these provisions.

5.7 GENERAL PROVISIONS AND PROCEDURES

5.7.1 Introduction

These provisions determine the powers and authorities which enable the local governments to control land subdivision activities, prevent urban sprawl, ensure the fulfilment of proper planning principles and provide the subdivisions with essential utilities and public amenities. It is recommended that such provisions be embodied in the Central Law applied at the level of the Kingdom and they are referred here only as a guide.

5.7.2 Approval of the Subdivision Plan

No subdivision plan will be carried out, no amendment can be introduced into an existing approved subdivision plan and no disposal of a lot in a subdivided plan can be effected unless it is approved in accordance with the conditions laid down by the specific regulations. Emir of Al-Medina Area will sanction the plan after making sure that it is in conformity with the law, the subdivision regulations, the physical plans, the ordinance and official map.

5.7.3 Publication of the approved Decision and the Consequent Results

The decision regarding the approval of the subdivision plan is to be published in two widely circulated papers in Al-Medina Area and at the level of the Kingdom in general. Consequent upon the publication of the decree the areas designed for roads, parks and locations of various facilities are annexed to public property. The

divider has the right to temporarily use this land until they are used for their original purpose providing he does not change its features or construct establishments on it without the approval of the Al-Amanat. The divider is held responsible until the land is handed over to the Al-Amanat.

5.7.4 Subdivision Plan for non-building purposes

Concerning the subdivision plans for non-building purposes and which do not need construction of streets they shall be approved by Amin of Al-Medina.

5.7.5 Control and Direction of Physical Extension

For considerations related to the control of physical growth, capacity of public utilities and preservation of agricultural land and regarding physical plans the Municipal Council of Al-Medina at the request of Al-Medina Planning and Development Department and on the approval of the High Committee may envisage phase programme for physical development, which defines the stage of development and the rules regarding changing of priorities of a stage. The subdivision process shall be according to this programme and zones comprised in.

For the same considerations the Council may delineates a certain area within the physical development framework where implementation of a subdivision is suspended for a certain time. If the ban is imposed due to the lack of public utilities, it is lifted in case the developer is committed to introduce public utilities within a certain period and according to conditions laid down by the Al-Amanat.

The Council may also for safety reasons and on the recommendations of the Planning and Development Department, ban subdivision in slopy areas, areas liable to deluge or areas unsuitable for the construction of building due to incomplete topographic characteristics.

5.7.6 Joint Subdivision Projects

For ensuring orderly physical development because of odd shaped or smaller than required lots, the Amanat Al-Medina in cooperation with the Planning and Development Department and on the approval of the High Planning Committee, shall issue orders for annexation and consolidation of some adjacent lots and preparing common subdivision plan for the area. A certain period has to be fixed by Amanat Al-Medina for the owners of the land to execute the plan and if they refuse Amanat Al-Medina can expropriate the land and carry out the plan. In case some people accepted and some refused, the expropriation measures are applicable to those who refuse and in this case the plan is implemented jointly by those who accepted and Amanat Al-Medina according to an agreement reached by the two parties.

5.7.7 Readjustment of Land Boundaries

Because of the considerations mentioned in the previous paragraph some owners of adjacent lots may voluntarily or at the request of Amanat Al-Medina and under its supervision make readjustment of the boundaries of the lots to be suitable for subdivision. In case they do not come to an agreement the Al-Amanat can enact the provisions of the previous paragraph after the approval of the Municipal Council and the High Planning Committee.

5.7.8 Establishment of Public Utilities in the Subdivision

Amanat Al-Medina on the approval of the Municipal Council may force the developer to provide essential utilities in the subdivision or pay the fees and costs of its installation to Amanat Al-Medina on the conditions and rules worked out by the concerned department in Amanat Al-Medina. A decision is issued by the Head Amanat Al-Medina defining the obligations of the developer. If the works of utilities exceed the actual requirements of the subdivision to serve other subdivisions and areas in the future the developer is to pay for the actual requirements and the difference in costs is financed by Amanat Al-Medina.

5.7.9 Implementation of Subdivision in Stages

For economic reasons the developer may request for approval of the entire subdivision scheme of his land providing the implementation of the subdivision is carried out in successive stages. The subdivision application should be in conformity with the prescribed regulations and should show various stages of implementation, the main roads and the population densities in each stage. The developer shall get the approval of each stage according to the approval of the entire subdivision. The developer has to abide by any changes which may be introduced to the Master Directive Plan and he has to stick only to the building regulations which are applied while the approval of the project in each stage. No modification in the timing of the stages of implementation is allowed unless it is approved by the Medina Planning and Development Department.

5.7.10 Transactions of Lots in the Subdivision

No transaction of any parcel of the subdivision scheme, nor construction of building permits is allowed without the prior approval and registration of the subdivision plan. Also no transaction or building works can be permitted before the completion of public utilities works for the stage in which the building lies or after the payment of cost of such works to Amanat Al-Medina. This ban shall be extended for six months after the date of payment. As for the subdivision for non-building purposes, it is enough to get the approval of the subdivision. The Notary Public "Kateb Al Adl" would not give clearance for any parcel of the subdivision without submission of a "No Objection Certificate" from Amanat Al-Medina that it fulfils the provisions and rules of this paragraph

The decision approving the subdivision and the protective covenants related to it should be mentioned in the contract. It should be stated that these restrictions are incumbent on the buyers and their successors. This protective covenants are considered part and parcel of the subdivision approved. The conditions can be considered easement right or on contractual basis between the buyer and the developer.

5.7.11 Preparation of Subdivision Plans by the Al-Amanat

Al-Medina Planning and Development Department may undertake preparation of certain subdivision plans in implementation of a decision by the Head of Amanat Al-Medina or at the request of the subdivider himself with the aim of improving the quality of plan and making sure that the plan conforms with regulations, physical plans and sound planning criteria. In this case the opinion of the divider should

be observed without breaking the aforementioned principles. The divider will have the right to appeal to the Head Amanat Al-Medina or to those concerned against any decision or action which may prejudice his rights. The judgement in this context is considered final. The Municipal Council shall estimate the fees to be paid by the divider to Amanat Al-Medina in this case.

5.8 PROCEDURES AND STEPS FOR APPROVAL OF SUBDIVISION PLAN

These rules cover the procedures and steps of approving the subdivision including the documents, and data to be submitted with the application. They also include the technical conditions to be fulfilled in preparing the subdivision plans, the provision of utility network in the subdivision and the conditions to be fulfilled in slopy areas.

5.8.1 Application for Preliminary Subdivision Plan

The following documents shall be submitted along with the application of subdivision and the preliminary subdivision plan by the owner of land or his legal representative to the concerned authority in Amanat Al-Medina:

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- a) A Plan or a map at the scale of 1:5,000 defining the site of the land, the existing or proposed streets. the boundaries of the adjacent property or subdivisions and the name of the owners.
 - b) Documents of ownership e.g. sale deed, official allotment, inheritance or gift endowment.

- c) Copy of compliance certificate showing the suitability of the location from the planning point of view and for the designated uses.
- d) The receipt showing the payment of the Application Fees.
- e) A certificate from the Kateb Al-Adl showing the land assigned for public utilities is free from any real right as mortgage or other rights.
- f) Three copies of the Survey Plan on the cadastral survey map of the area showing the boundaries of the land, the contour lines, the dimensions, the area of the subdivision and vertical cross sections at suitable distance if they are necessary. The map or the drawing should be at a scale of 1:1,000 according to the model map prepared by Amanat Al-Medina.
- g) Four copies of the preliminary plan showing the nature of the subdivision, the general planning of the subdivision with the necessary details drawn at the scale of 1:1,000, showing the information as follows:
 - North Cardinal Point, Scale and Date.
 - The proposed title of the subdivision.
 - Name and address of the owner and the registered engineer and surveyor who prepared the scheme.

- The location, length of boundaries, width and approximate grade of streets and the relationship of streets within the subdivision to any adjacent street, subdivision and zones, the alignment of easement, the setback lines, the approximate dimension of lots and proposed lot and block numbers.
- The approximate alignment of the volume and type of sewerage and storm water drainage pipes, all water courses and other constructions either those underground or on the surface.
- Classification of all the streets in the subdivision or the adjacent areas according to uses, main street, secondary street, collector street, service street or cul-de-sac.
- The general uses and the location of buildings, if any.
- The locations for proposed public service establishments with details of the type of the establishment.
- The locations proposed for residential buildings and for commercial, industrial and other purposes if any.

5.8.2 Approval of the Preliminary Plan

The Planning and Development Department reviews the preliminary plan and if it is found to be in conformity with the regulations and physical plans, the department may inform the applicant to prepare the final plan to be in accordance with the instructions and statues in form prepared by the MPDP or the Department may undertake the preparation of the plan according to regulations. The

department should decide within 90 days "approval, conditional approval or disapproval". In case of conditional approval or disapproval reasons should be given in writing and a copy signed by the head of the concerned department is to be given to the applicant. In case of conditional approval the department may request a revised preliminary plan that fulfils all conditions. If the applicant does not receive any decision from the Department within 90 days prescribed limit, the plan will be deemed approved, unless reasonable justification for extension of the period is given by the Department.

5.8.3 Final Subdivision Plan

The applicant has to submit five copies of the Final Subdivision Plan to Al-Amana neatly drawn on Sepia paper in black ink using permanent materials. If the applicant fails to submit the Final Plan within 12 months after approval of the preliminary subdivision plan, the approval of the preliminary plan is considered as having been disapproved. The Al-Amana may extend the validity of the approval to another 12 months. The Final Plan is prepared at the scale of 1:1,000 based on the survey maps. The plan has to contain the following information

- Title of the subdivision, name and address of the owner.
- Date, North Cardinal point and Scale.
- The width and length of the proposed streets and their connection with the existing streets in other adjacent subdivisions strictly showing the areas illustrating the width and grade of those streets.

- Lots to be allocated for public service use and the purpose of allocation and also their dimension.

- The total area assigned for roads, squares, public parks, open areas and other public uses.

- The percentage of the area assigned for the aforementioned uses to the total area of the subdivision.

- A table containing blocks and lots numbers, their dimensions and area.

73
- Proposed building and setback lines, easements for the routes of public utilities, if any, their dimensions and locations.

- If the subdivision is to be implemented in stages, these stages should be illustrated.

- In case the owner is committed to provide the public utilities he submits a programme for implementing these utilities and a bank credit covering the cost of implementation or he pays the cost to the Al-Amana in case it undertakes the implementation.

Following certificates shall be appended with the Subdivision Plan:

- Certificate of ownership and allocation of the land assigned for public utilities.

- Name of the designer, certificate of his competency and his signature.

- Reference to the protective covenants imposed on the subdivision.

- Certificate of compliance of the location from the planning point of view.

5.8.4 Review of the Final Subdivision Plan

The Planning and Development Department shall review the plan to determine that it conforms to the preliminary plan as approved, the Master Directive Plan, Execution Plans and relevant regulations. Before that the Land Department of the Al-Amana shall review the plan for the accuracy of the survey and shall make such checks in the fields as may be necessary to determine that the survey (areas and boundaries) is correct.

5.8.5 Approval of the Final Subdivision Plan

The Director of the Planning and Development Department shall submit the Final Plan to Amin Al-Medina for approval and a report showing his views shall be submitted with the plan. The approval is accorded on the basis of a decision from the Municipal Council which should be signed by the Head of Al-Amana and the Director of Planning and Development Department. The decision should be taken within 60 days of the submission to the Al-Amana. If no decision is taken within that period the plan is considered approved unless it is agreed upon with the owner to extend it for another period. In case of disapproval, reasons should be given in writing mentioning the regulation the plan does not comply with.

5.8.6 Recording of Approved Final Plan

The department concerned in Al-Amara shall register all subdivision applications with all the related data such as the decision of the approval of the preliminary plan and the approval of the final plan in special records for that purpose. The original approved plan and its protective covenants shall be filed with Kateb Al-Adle. Unless they are filed, the subdivision lots are not valid for transaction. One copy shall be filed in the permanent records of the Medina Planning and Development Department.

5.9 TECHNICAL CONSIDERATIONS AND DESIGN STANDARDS

In preparing the subdivision plans the principles and standards which govern the Master Directive Plan, and the Execution Plans such as the Land-use, Traffic and Public Utilities should be observed as follows:

5.9.1 Urban Design Standards

- a) The area and dimension of the lots and blocks and other places assigned for residential, commercial and industrial purposes and for public utilities should be designed in such a way as to allow for enough ventilation, lighting and open space, off-street parking and for loading and unloading berths.
- b) The arrangement and layout of the lots, blocks and streets should be in such a way as to make optimum use of the topographic and natural features of the land with maximum possible preservation of the trees. The

layout of the streets should be designed according to the established rules and regulations as enforced by the authorities concerned.

- c) The subdivision should satisfy the minimum requirement of the zoning bye-laws and regulations.
- d) Each lot in a subdivision intended for construction of building should be bounded by a street from at least one side.
- e) No subdivision is allowed unless it is connected with one of the public streets. If there is no connection with a public street and the Municipal Council sees that a street has to be constructed, the owner of the subdivision shall pay the cost of the property necessary to be expropriated for this street and shall also bear the costs of construction of this street and public utilities.

5.10 PLANNING STANDARDS

- a) At least 40% of the total area of the subdivided land should be assigned for public use purposes such as streets, squares, gardens, parks and open spaces. Following the approval of the Ministry of Municipal and Rural Affairs, Municipal Council may increase or decrease the amount of land allocation required for public use. It has also the right to set aside a portion of the land assigned for public use for the purpose of laying public utilities and service construction.

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If the Council wished to increase the area assigned for public use than required under the regulations it shall compensate for the extra land on the basis of market value of the land prior to its subdivision and in accordance with the expropriation law. The owner in this case does not bear any increase in the costs of the construction of public utilities.

- b) The provision of open spaces, gardens, parks, recreational places, playgrounds should be considered in the light of the actual needs and according to the standards and recommendations of the Master Directive Plan and the Execution Plans.

5.11 DESIGN CRITERIA

5.11.1 Streets

The layout arrangement, planning, design, width, curvatures and grades of the streets should conform with all the elements of the Master Directive Plan, the Execution Plans and the technical conditions laid down by Al-Amana as follows:

- a) If the width of the existing street bounding the subdivision scheme is less than optimum, the developer shall widen the existing street from the side of the subdivision by a distance equal to half of the difference between the width of the existing road and the minimum stipulated width according to abovementioned plans.

- b) Amin Al-Medina on the recommendations of the Planning and Development Department may force the developer to make the whole widening from the subdivision and this area can be counted from the land assigned for public use purposes. If the whole street passed through the subdivision, all the widening should be from the subdivision.
- c) Amin Al-Medina on the recommendations of the Planning and Development Department may relax or waive the condition of widening the road from the side of the subdivision in view of the function of the road, the land-use on both sides of the road and according to the principles laid down by the Execution Plans.
- d) Whenever a subdivision abuts or contains an existing or proposed main street, the Planning and Development Department may request service streets on one or both sides of this street, reverse frontage, deep lots or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of arterial and local traffic.
- e) Secondary and local streets shall be laid out so that their use by arterial traffic will be discouraged.
- f) When a tract is subdivided into larger than normal building lots or parcels, such lots or parcels shall be arranged to permit the

logical location and opening of future streets and appropriate re-subdivision, with provisions for adequate utility easement.

- g) In subdivision plans halves of the streets bounding the subdivision should be avoided unless the subdivision proves that the other halves will be dedicated from the next property and approved by the Municipal Council. The jog intersections where the distance between its axes is less than 60 meters should be avoided (see Fig.5).
- h) With consideration to the width of the streets defined in the Action Master Plans and the Execution Plans the right of way should not be less than as follows:

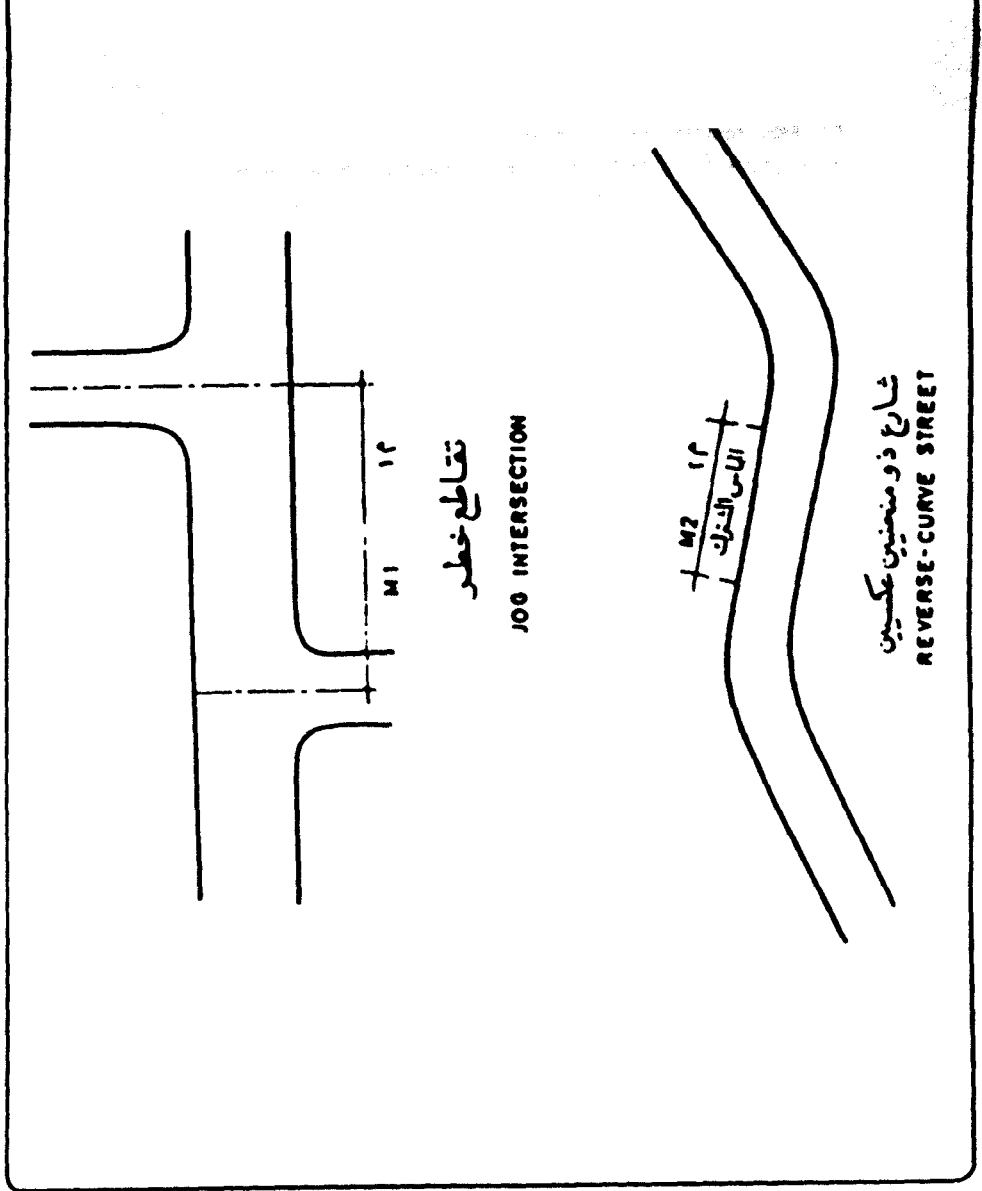
Main Street

The arterial major streets	48 meters
The arterial secondary streets	30 meters

The Secondary Streets

Collector streets	30 meters
Local streets	20 meters
Cul-de-sacs	18 meters
Service streets	6.5 meters

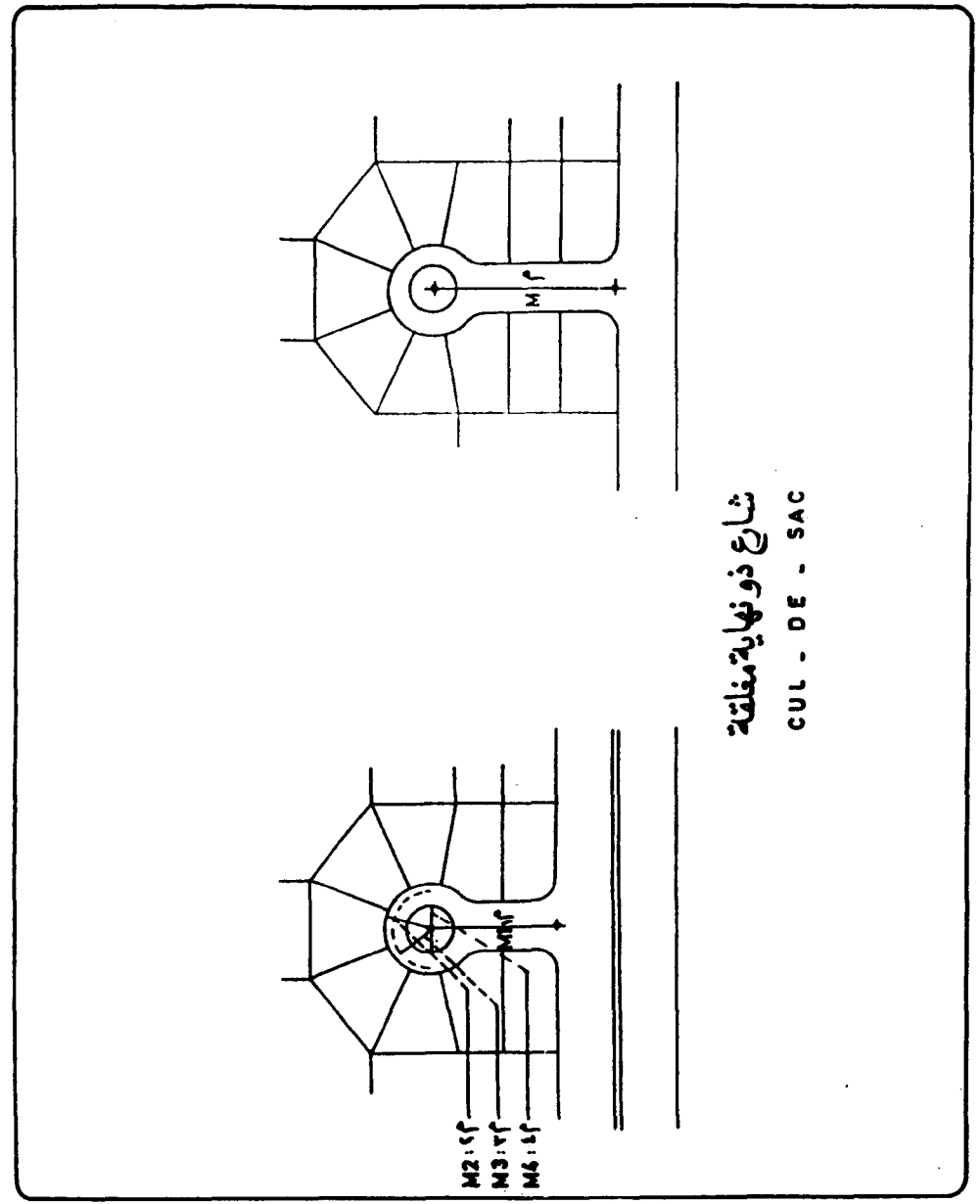
- j) The Planning and Development Department may prescribe a minimum width of the street greater than the abovementioned width. Also it can prescribe less widths in certain areas, subject to the approval of the Amin Al-Medina.



LEGEND	M1:80 METERS AT LEAST
	M2:30 METERS AT LEAST

TOWNS ORDINANCE	
INTERSECTIONS	
Source	Date
Consultant (1/1/1982)	No. 5

- k) The paved width of all streets shall be adequate to serve the existing and future estimated traffic load for the facility and shall conform to the standards laid down by the concerned agencies. The streets should be defined and organized in a way that does not impede subdivision plans in the adjacent property and Amin Al-Medina on the recommendation of the Planning and Development Department has the right to specify a certain status whereby streets can be constructed with an aim to facilitate the subdivision of the adjacent property in the future.
- l) In the case of constructing a cul-de-sac in a subdivision the following points should be taken into consideration:
- The length of the street should not be more than 150 meters from the entrance to the center of the turnaround at the other end of the cul-de-sac.
 - If the street is longer than 50 meters, it shall be provided with a turnaround having a radius of not less than 15 meters at the property line and not less than 12 meters at the curb line.
 - There shall be provided in the center of the turnaround an island which has a radius not less than 3.5 meters and not more than 5 meters as shown in Fig.6.
- m) Subdivisions without public roads could be approved even if some lots do not abut existing



LEGEND MORE THAN 150 m. MORE THAN 50 m. LESS THAN 15 m. LESS THAN 12 m. LESS THAN 15m. MORE THAN 5 m.	PLANNING ORDINANCE CUL - DE - SAC	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Date No.</td> <td style="width: 50%; text-align: center;">6</td> </tr> <tr> <td style="width: 50%;">No.</td> <td style="width: 50%; text-align: center;">6</td> </tr> <tr> <td colspan="2" style="text-align: center;">MULHANT 6/1102</td> </tr> </table>	Date No.	6	No.	6	MULHANT 6/1102	
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MULHANT 6/1102								

streets so far as the area and dimensions of the lots do not allow the construction of public roads in accordance with the regulations. In this case a path for each back lot should be made to provide access to the public road. This path should not be less than 6 meters wide and its area is considered part of the lot. No construction on this path is permissible and it cannot be disposed off in the future.

n) The subdivider is not authorised to name the streets in a proposed subdivision scheme. The subdivider may propose the names of the streets in a subdivision on a condition that they are not repetitive or conflicting with the existing street names. Amanat Al-Medina may approve the

o) The design of the streets, square, open spaces should follow the other principles and standards laid down by Al-Amana. These principles should be attached to these regulations. The grade of the arterial and collector streets should not be more than 5% and 10% in local streets. The radius of curvatures should not be less than:

250 meters for the main arterial streets
100 meters for the collector streets and
30 meters for the local streets.

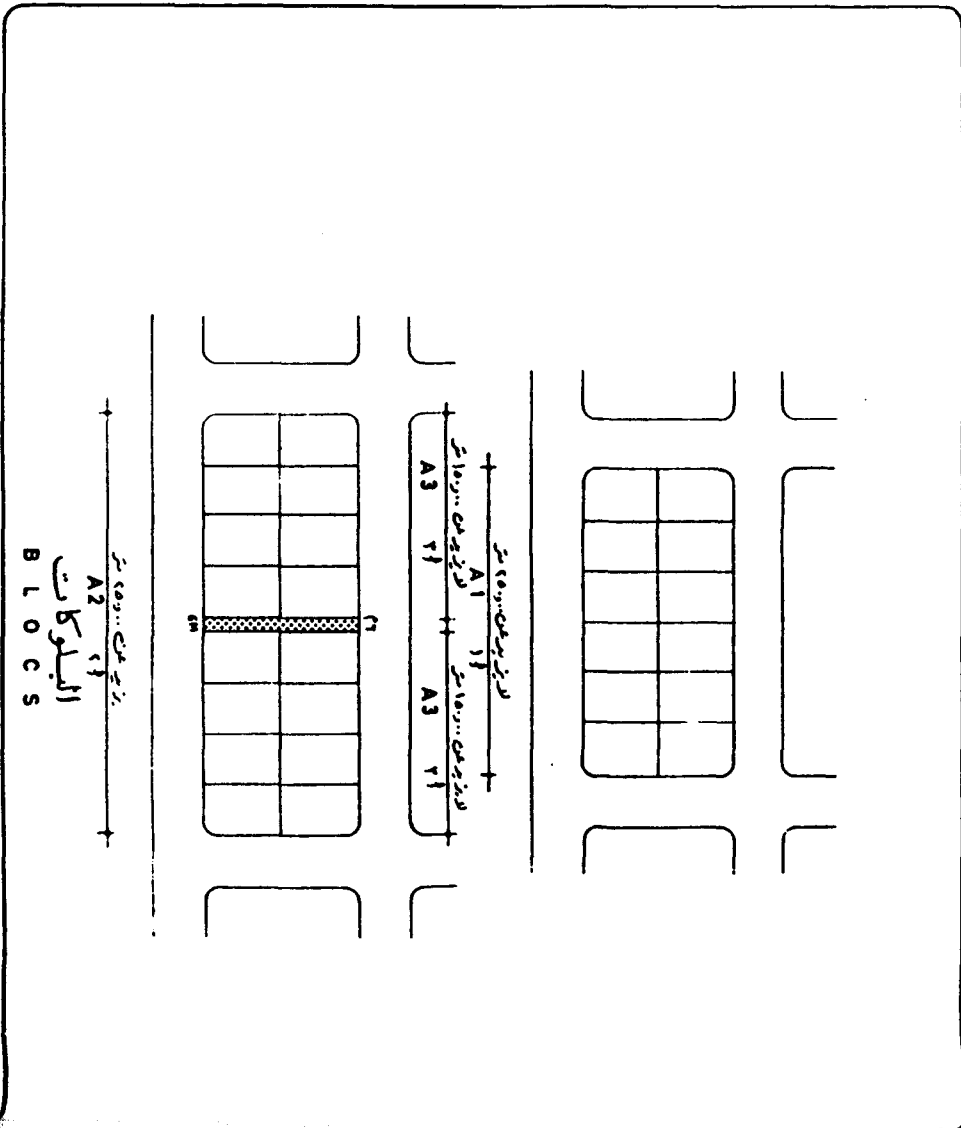
The length of the tangent of the reverse curvatures of streets should not be less than 30 meters, as shown in Fig. 5.

5.11.7 Blocks

The lengths, widths, and shapes of blocks shall be determined with due regard for the following

- a) Provision for adequate building sites suitable to special needs of the use contemplated.
- b) Zoning requirements as to lot sizes and dimensions and coverage.
- c) Needs for convenient access, circulation control and safety street traffic.
- d) Limitations and opportunities of topographic
- e) Blocks for residential use shall not be longer than 250 meters measured along the center line of the block. When a block exceeds 250 meters, the Planning and Development Department may require a dedicated easement not less than four meters in width to provide pedestrian access across the block. The distance between the center line of this easement and the end of the block does not exceed 150 meters. (see Fig 7)
- f) Blocks intended for commercial and industrial use should be of a width suitable for intended use with due allowance for off-street parking and loading facilities.

Source CONSULTANT		Date 1/1/1973		No. 7	
ZONING ORDINANCE B L O C K S					
LEGEND					
ALL MORE THAN 250M					
ALL MORE THAN 250M					
ALL MORE THAN 150M					



5.11.3 Lots

- a) The size and shape of lots shall meet the standards of the zone in which the lots are located and in each case it should be appropriate for the intended use of the property.
- b) The side lot lines shall be as far as practical, at right angles to the street.
- c) If there are lots assigned for commercial or industrial use the sizes and layout shall provide spaces for loading and unloading and off-street car parking and be in conformity with the standards of zoning.
- d) The construction of double frontage or reverse frontage lots should be avoided unless this is needed to provide the separation of the subdivision from the arterial traffic movement or to overcome a specific disadvantage of topography and orientation.

5.11.4 Building Lines

The building lines, the side and rear setbacks shall meet standards of the zone in which lot is located as stipulated in the zoning ordinance.

5.11.5 Easement

- a) The subdivider has to provide easements for the installation of storm and sanitary sewers, water main, electric power lines and

other public utilities, wherever necessary in accordance with the directives of the Planning and Development Department.

- b) The width of easements shall be not less than four meters and centered on rear or side lot lines unless the Planning Department require to increase this width.
- c) Of a natural water course or a storm water drainage channel traverses the subdivision, the required storm water or drainage easement shall follow the alignment of water course and shall be of adequate width for the purpose. The width of the water course shall be determined on the basis of the record regarding the flow of storm water during the last fifty years.

5.11 PUBLIC UTILITIES WORKS

5.11.1 General Guidelines

- a) The design and implementation of public utility works shall meet the standards and principles of the physical plans at all levels as well as the specifications and standards laid down by the regulations. The implementation should be under the supervision of the agency of the utility concerned and in accordance with its directives.
- b) The subdivider if committed to the implementation of utilities shall provide two sets

of maps, drawings and specifications. The preparation of these drawings, plans and design and their implementation shall be carried out under the supervision of an approved competent engineer in accordance with the established principles and practice of the engineering profession.

- c) The subdivision shall be marked in the field with concrete posts at the corners. The design and size of the posts shall be in accordance with the drawings and dimensions as specified by Al-Amana.
 - d) The subdivider shall provide public utilities in the subdivision in accordance with the directives of Al-Amana and as stated below. However, the Municipal Council may use its discretion and shall fulfil this obligation itself in case the subdivider is unable to do so.
 - e) The subdivider shall define the features of the subdivision in accordance with the guidelines as stated above. He shall establish the layout of streets, squares, public parks and adjust their levels as determined by the Al-Amana.
- ### 5.12.2 Streets, Squares, Parks and other Open Spaces

After completing the works of public utilities he shall construct and pave the streets, public squares and pavements and shall carry out parks landscaping and tree plantation along both sides of the streets and in public gardens and in the road medians in pursuance of Al-Amana directives.

5.12.3 Water Supply Network

- a) The water network, the installation of hydrants in the streets shall be made in accordance with the specifications and conditions stated by the agency concerned and under the overall supervision of Al-Amana.
- b) Al-Amana may request to partially increase the capacity of pipe network to cater for some other areas outside the subdivision and in this case it shall pay for the extra costs. Al-Amana in all cases shall pay the cost of constructing elevated water tanks and lifts stations.

5.12.4 Electricity Supply Network

- a) The subdivision shall be supplied with electric power and the public lighting network including underground cables and the electric poles shall be constructed in the areas where the main supply is available.
- b) The agency responsible for the supply of electric power shall construct the high tension overhead cable network and the transformers and the costs of all the extra works involved to supplement the network to cater for other areas outside the subdivision.

5.12.5 Sewerage and Sanitary Drainage

- a) The subdivision shall be connected with the nearest main sewerage network if any according to Al-Amana approval and provide its own network including the catch basins and lift stations etc.
- b) If Al-Amana desires to increase the capacity of the sewers it has to bear the extra costs.
- c) The design, construction and implementation of all sewerage works should be in accordance with the specifications laid down by the department concerned.
- d) In the areas where there is no public sewerage network or where it is not feasible to construct a sewerage network, the drainage of the sewage and effluent shall be disposed off through septic tanks or any other available drainage method. In this case the method of disposal of the waste should be mentioned in the approval decision of the subdivision, and the following points should be observed:
 - In this case the lot assigned for residential use shall not be less than 800 square meters.
 - The works assigned for drainage or any part of it shall be at least 4 meters away from the boundaries of the lot.
 - The method of drainage should be in accordance with the good public health engineering practice.
 - If the area of the subdivision is 3 hectares

or more, Al-Amana may oblige the subdivider to provide the subdivision with a satisfactory private drainage network for the disposal of soil, waste and surface water from construction in the subdivision.

5.12.6 Execution of Utilities in the Subdivision

In case the subdivider is obliged to pay for the execution of public utilities the execution is carried out either by himself or by the department concerned with the utility according to the decision of Al-Amana. In that case the following points shall be observed:

- a) The department in charge in Al-Amana makes a cost estimate and notifies the owner to submit a letter of credit of 10% of the costs prior to the decision regarding the approval of the subdivision.
- b) The subdivider shall carry out the execution under the supervision of this department concerned. Al-Amana by agreement with the owner or at the request of the Municipal Council, shall carry out the execution and in this case the subdivider shall pay the costs to the department concerned which he may draw against his own insurance indemnity deposit with the authority which shall be proportionate/equivalent to the cost of these works.
- c) Concerning the works carried out by the owner himself the insurance amount remains with Al-Amana for one year from the completion of these works and may use this amount to make

good all the deficiencies that may appear during the one year of the Defect Liability Period.

- d) Concerning public utilities the execution may take place in stages or in parts. Each stage should fulfil the conditions before starting the new stage.

5.13 SUBDIVISION ON HILL SIDES AND SLOPE SITES

For a subdivision on a slopy site (15-100⁰) average steep or more, following points shall be observed:

- a) Detailed data on the geological characteristics of the site shall be given to ascertain the structural stability of the soil.
- b) The area of the lot shall be more than the minimum permissible size.
- c) Detailed drawings showing excavations and filling works shall be submitted with the specifications of filling and the retaining walls and other constructions.
- d) Easy access to the site shall be guaranteed so as to facilitate periodical maintenance and check ups.
- e) Satisfactory disposal of the sewage and effluent shall be guaranteed and septic tanks shall be avoided as the accumulating of the effluent underneath the ground may cause ground sliding.

f) In view of the generally low traffic in the slopy areas, the width of the roads may be less than the standard width in other subdivisions to reduce the amount of excavation and filling works.

g) The slopes of streets shall be designed in accordance with the engineering principles and the vertical and horizontal curvatures shall be reduced. Easy access for the firemen to any place in the subdivision shall be ensured.

5.14 PROTECTIVE COVENANTS ANNEXED TO THE SUBDIVISION

The owner shall submit the set of conditions and restrictions with the subdivision plan, as will be contained in the sale deed with the buyers, for ensuring good residential environment. These restrictions aim at proper arrangement of the subdivision, the welfare of the people and prevention of disturbance and nuisance. Without violating the physical plans regulations, the building laws, the zoning regulations, the protective covenants aim at realizing the abovementioned general objectives particularly the following assertions:

- The general objectives of the covenants.
- The building uses and character.
- Control of the population density by constructing only one building on the lot.
- Architectural control of design and implementation.
- Minimum cost of construction to maintain

- Determination of the relationship between the building and the lot e.g. building lines, heights, setbacks from the street and coverage etc.
- Prohibit works which cause disturbance or nuisance.
- Prohibit temporary installations.
- Prohibit advertisement.
- Prohibit breeding animals or poultry.
- Prohibit the disposal of waste and refuse in the same area.
- Any other regulations which should help achieving the foregoing objectives.

5.15 EXCEPTIONS

- a) Subdivision plans for non-building purposes or those where no streets have to be constructed in them are exempted from item (e) of the Sub Section 5.8.1. These subdivisions shall be approved by the Director of the Planning and Development Department of Al-Medina.
- b) Without prejudice of the zoning ordinance and other applied legislation, the Planning and Development Department may exempt a subdivision from these regulations or from some of it if the subdivision is a complete residential neighbourhood based on the concept of Planned Unit Development (PUD) constituting at least 200 residential units and an area not less than 4 hectares. The following

A detailed plan for the neighbourhood or the PUD is prepared at the request of the owner. It may be jointly prepared by the owner and the Planning and Development Department or prepared by the owner and reviewed by the Planning Department.

The plan of PUD shall be approved by High Planning Committee.

Attached with the plan there should be the set of regulations which govern subdivisions in the area and it should particularly include the layout, design and width of the streets, specifications of constructing streets and parks and provision of utilities such as water, drainage and electricity.

5.16 VARIANCES

Whenever the tract to be subdivided is of such unusual size or shape or is surrounded by such development or unusual conditions that the strict application of requirements contained in these regulations would result in substantial hardship or inequity, the requirement may be varied or modified realising the following:

- a) The variations or modifications covers only the design standards but not the procedures or improvements.
- b) The aim of variations or modifications is to enable the subdivider to develop his property in reasonable manner.

- c) The public welfare and interests of Al-Medina are protected and the general intent and spirit of these regulations preserved.
- d) The variations or modifications should not harm the neighbouring properties.
- e) The owner should submit an application explaining the reasons for seeking variances or modifications.
- f) The variances or modifications should be approved by Al-Medina High Planning Committee.

5.16.1 The Executive Authority

Amanat Al-Medina and the Planning and Development Department shall carry out the application and implementation of these regulations and take necessary measures against any violations.

5.16.2 Appeal - Penalties - Clearance and Correction of Violations

Violation of these regulations shall be subject to penalty as determined by the general law applicable in the Kingdom. The steps and measures for clearing the violations shall be according to this law.

The appeal against the decisions taken by the concerned authority shall be submitted to a committee formed for this purpose. The formation of the committee, its functions and competency are determined by the regulations of the general law.

6. OFFICIAL MAP ORDINANCE

6.1 DEFINITIONS

In implementation of the provisions of this ordinance the following words shall be construed to have the meaning herein indicated:

- Al-Amana: means Amanat Al-Medina Al-Munawara.
- Al-Amin : means Amin Al-Medina Al-Munawara.
- Right-of-way: A street, alley or other thoroughfare of easement permanently established for passage of persons or vehicles.
- Official Map: A map showing the street plan according to the final execution design, defining the proposed alignment to regulate and improve streets and squares and the properties to be added to the streets as taken areas and those parcels incorporated into the lots as surplus areas to be added to abutting properties. It also shows the location of public utilities and facilities according to the Action Master Plans, Execution Plans and the Action Area Plans.
- Building Line: The line parallel to the street line at a distance therefrom equal to that depth of the required front yard, and no projection is permitted beyond this line except as prescribed by the ordinance.
- Tanzeem Line: The design line of the edge of street, the demarcation of which is to improve.

W
80

Surplus Land: The parcel of land rendered surplus due to tanzem line, to be added to abutting properties.

6.2 OBJECTIVES

The official map ordinance provides the legal tool to acquire the land necessary for public facilities during a period of time and in the future as determined by the improvement and development programme, the Master Directive Plan and the Execution Plans.

6.3 LEGAL STATUS OF THE OFFICIAL MAP

Official map shall not assume the legal -bound status except after its approval by the concerned authorities in compliance with the provisions of the law, and after its issuance. The date of issuance is the effective date.

6.4 CONTENTS OF THE MAP

The official map shows the location and extensions of existing public streets, proposed street lines and new streets including rights-of-way, water courses, parks and playgrounds, public schools and building sites and other public facilities needs.

The land requirements necessary for public facilities will be determined by the action plans to be carried out during the coming five years. As for the street lines either the new or the existing which need improvement will be determined in the light of Action Master Plans and the Action Area Plans without any specified period for its implementation.

6.5 PREPARATION OF THE OFFICIAL MAP

Official map shall be prepared on the basis of the Action Master Plan and the Action Area Plans and delineate in detail the location and boundaries of streets and the lines of property abutting them at a scale of 1:500 or 1:1000. Al-Medina Planning and Development Department will review these plans prior to its submission to the High Planning Committee for approval.

6.6 APPROVAL OF THE OFFICIAL MAP

Amin Al-Medina Al-Munawara will issue a decision regarding the approval and adoption of the Official Map. The decision will be published in two widely circulated daily newspapers published in the Kingdom of Saudi Arabia and Al-Medina Al-Munawara Metropolitan Area. The effective date is the date of publication.

Prior to submission to the High Planning Committee the plans should be publicised in two dailies in the Kingdom and Al-Medina to give the citizens and those interested the chance to be acquainted with these plans. The plans have also to be displayed in a certain place and a certain time in Al-Amanat. The opinions of the governmental departments concerned should be invited.

Al-Medina Planning and Development Department shall receive the views of the citizens and the circles concerned. Such views together with the comments of the Planning and Development Department will be then referred to the High Planning Committee.

6.7 RESULTS CONSEQUENT ON THE APPROVAL OF THE OFFICIAL MAP

The approval of the official map does not mean the expropriation or acquisition of land which falls under the use of streets or public facilities. The adoption of the map also does not mean that Al-Amanat is entitled to own this land. However, it is not permitted to erect buildings or structures or make drastic alteration of the existing buildings within the areas between the street and squares lines shown on the map. It is also not permitted to erect buildings, structures or make drastic alteration of the existing buildings within the limit of the locations designed for public facilities or for the establishment of new streets during the five years following the adoption of the Official Map.

6.8 BUILDING AND CONSTRUCTION PERMITS

Any person who desiring to construct a building or erect works within the scope of the official map has to get the approval of the department concerned in Al-Amanat and the approval is given with the permit of building.

The permit illustrates the approved tanzeem line and the established building line which should be observed during carrying out the construction works.

The permit also illustrates the width of the street and the curb levels in front of the building frontages and other information required by other regulations.

Without prejudicing the provisions of the building law and the established penalties, a person who erects buildings before getting the permit and the approval will

6.9 PERMITS FOR UNPROFITABLE LAND

For the purpose of increasing the return of sites prescribed in the official map to be acquired for public facility constructions, it may after the approval of the High Planning Committee and on a decision issued by Al-Ami be permitted to erect buildings at limited scale on such sites, provided not increasing the cost of future acquisition and the High Planning Committee shall impose requirements as a condition of granting such permits. Such a permit shall not be granted when it is possible and practicable to place the required building outside the boundary lines of the proposed facility.

6.10 OBLIGATIONS OF THE APPLICANT

Any one who is granted building permit shall not start work except after giving a notice of the date of commencement to the department concerned in Al-Amanat on the form prepared for this purpose. The notice will be registered and filed in the building permit register and then delivered to the concerned official.

He shall not commence works except after the engineer in charge align the tanzeem line and the building line. This alignment has to be done ten days after the notice and its date is to be recorded on the permit. If the ten days expire without carrying out the alignment, the owner may undertake it himself in the light of the data prescribed in the building permit under his responsibility.

6.11 PREPARATION OF THE OFFICIAL MAP

The concerned department in Al-Amanat shall pre-

a) The official maps are prepared on a sepia cloth or a certain type of durable paper suitable for circulation and filing.

b) The name of the town, the area, the date of submission, the decision of the High Flanning Committee, the date and approval decision shall be shown on the map.

c) The tanzeem lines drawn on the official plan which shall coincide with the property lines shall be in black ink and those within property lines shall be in red ink.

28 d) On the amendment of the tanzeem lines or the boundary lines of facility sites, the amendment will be in blue and put X on the cancelled lines. If amended again it will be in blue lines hatched behind.

e) The approval or amendment decision will refer to the approved lines and the cancelled lines. The lines will be marked as a,b,c,d etc.

6.12 EXCESS CONDEMNATION AND SURPLUS LAND

Amanat Al-Medina will impose rules and principles which govern compensation for the taken areas annexed to the streets as well as the sale of the surplus areas to the owners of the lots abutting the street.

6.13 FEEs

The fees are established according to the general law.

6.14 PENALTIES

Penalties for violating the provisions of this ordinance will be according to the general law.

7. **PRESERVATION OF BUILDINGS AND SITES OF RELIGIOUS
HISTORICAL OR ARCHITECTURAL SIGNIFICANCE**

The Kingdom of Saudi Arabia in general and Al-Medina Al-Munawara in particular teem with places, sites and buildings which are considered to be of great significance in the cultural, Islamic and national importance because of their religious, historical or architectural values. They are milestones in the Arabs and Islamic history. Therefore, it is a national commitment to preserve these invaluable assets, protect them against hazards that may jeopardise or undermine their significance and ward off any action which would impair its cultural and aesthetical manifestations.

The ordinance proposed hereafter shall assume legislative force from a general law to be promulgated and applied at the national level and enabling the local authorities to devise their own regulations as may be deemed appropriate to the local conditions.

7.1 **DEFINITIONS**

Under the enforcement of the provisions of this ordinance the building or the place considered to have a religious, historical or architectural importance is the building or the place which has a religious significance or which expresses an epoch in the national, Islamic or Arab history or which offers a distinct architectural ty considered as a national heritage that should be preserv.

7.2 ENLISTMENT OF BUILDINGS AND PLACES

The enlistment of the abovementioned places and buildings shall be undertaken by a committee formed through an order by His Royal Highness Amir of Al-Medina Area. The Committee will be under the chairmanship of Amin Al-Medina and the membership of:

- Representative of the Ministry of Hadj and Wakfs.
- Representative of the Ministry of Education.
- Director of Al-Medina Planning and Development Department.
- Three university professors specialised in history, architecture and religious affairs.
- Two local intellectuals selected by Amin Al-Medina.

This Committee has the right to set up sub-committees for assistance according to the rules devised for this purpose.

Five copies of the list shall be prepared on the prescribed forms approved by the Amīr of Al-Medina. The forms shall contain the name of the town, district, location of the building or the place, the physical condition of the building or buildings, the justifications for selection as a place of religious or historical or architectural significance for preservation purposes.

In designating the buildings or places above mentioned, the open space around and its surroundings which affect its status should be taken into consideration.

7.3 DISPLAY OF LISTS

The lists following the approval of the Municipal Council will be submitted to Amin Al-Medina. Then they will be displayed in Al-Amanat for 30 days. They are to be published in two widely spread newspapers pointing to the place, date and time of the display. The owners of the properties on the lists shall be notified and all concerned will give their comment.

7.4 APPEAL AGAINST INVENTORY LISTS

Any person concerned has the right to appeal against the contents of the inventory lists and shall file his appeal with the concerned department in Al-Amanat, and takes a receipt for it.

Amanat Al-Medina will refer the appeals within a week of its submission, to the Committee in charge which will issue its decision after having been approved by the Minister of Rural and Municipal Affairs. The applicant will be notified of the final decision within two weeks from the sanctioning date.

A special record will be prepared for filing final lists after being sanctioned by the Minister of Rural and Municipal Affairs.

The appeals will be considered by a Committee formed through a decree by the Minister of Municipal and

Rural Affairs. The Committee will take its decision within 30 days of referring the appeal to it.

The owners whose appeals are rejected can request the purchase of the property or their share in it. Amanat Al-Medina meanwhile may expropriate any property enlisted on the inventory for preservation purposes.

7.5 WORKS PERMIT

No erection, construction, clearance, repair, extension or alteration of the existing buildings or spaces enlisted on the inventory shall be permitted until after a permit from the Al-Amanat has been granted.

The owner shall be obliged to maintain and preserve these buildings and has to keep their architectural, and historical value intact.

Amanat Al-Medina may refuse to grant a permit for such works if they prejudice the provisions of this ordinance or impair the historical or architectural or religious value of the property. The owner has the right to appeal against the decision implying refusal and may submit his appeal to the Committee mentioned above.

7.6 AMENDMENT OF LISTS

The Minister of Municipal and Rural Affairs may introduce amendments in the lists of the places and buildings of historical, religious or architectural significance and shall adopt the steps and procedures followed in the preparation of such lists.

7.7 PRESERVATION PROCEDURE

For the purpose of preserving the character of areas having historic or religious significance and also the buildings and sites of special religious, historical, cultural or architectural value, Amanat Al-Medina upon the recommendation of Al-Medina Planning and Development Department may, notify the owners of such area, sites and buildings existing in them to take the necessary action for the preservation and restoration of them and keeping them in good case of maintenance and repair. The Amanat shall provide financial incentives to the property owners for preservation and restoration of their properties which shall be estimated according to the nature and value of the needed works. Carrying out works should be under the supervision of the concerned authority. The notice shall be sent by registered mail comprising the works needed to be undertaken by the owners, the period and the financial incentives. A copy of the notice shall be displayed on the site or on the building. The concerned persons can apply against this notice to High Committee for Planning and Development according to the bases and procedures stated by a regulation of the said High Committee.

If the owners do not obey the notice or fail to satisfy needed work Amanat Al-Medina, after the approval of High Planning Committee has the right to undertake the necessary works.

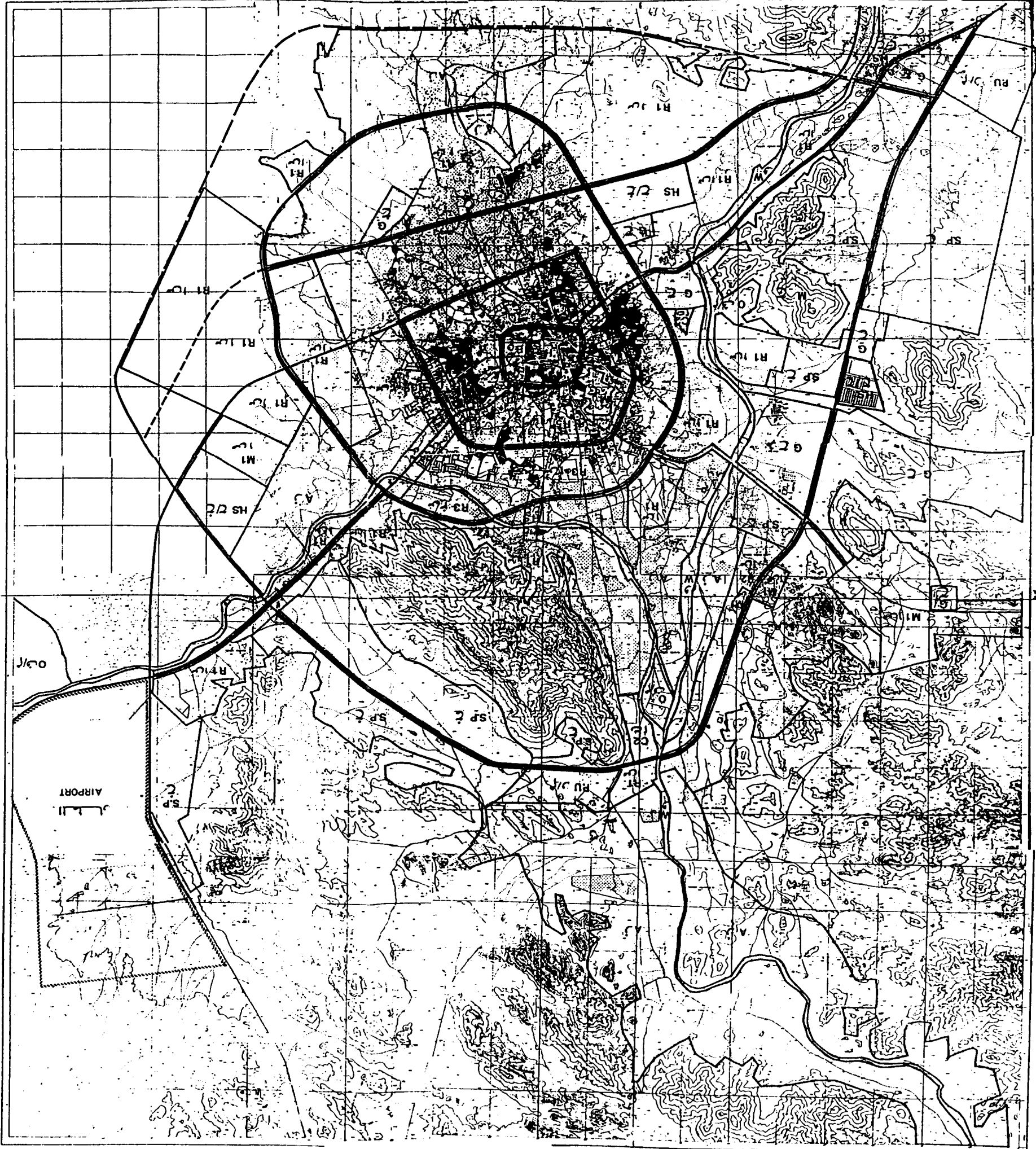
1:50,000
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MASTER DIRECTIVE PLAN
 ZONING MAP
 (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z)

DEPARTMENT OF LAND ADMINISTRATION
 GENERAL PLANNING DIVISION
 1975

NORTH
 SOUTH
 EAST
 WEST

1:50,000
 1:50,000
 1:50,000
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LEGEND

0	UNCLASSIFIED	0	UNCLASSIFIED
1	RESIDENTIAL	1	RESIDENTIAL
2	RESIDENTIAL	2	RESIDENTIAL
3	RESIDENTIAL	3	RESIDENTIAL
4	RESIDENTIAL	4	RESIDENTIAL
5	RESIDENTIAL	5	RESIDENTIAL
6	RESIDENTIAL	6	RESIDENTIAL
7	RESIDENTIAL	7	RESIDENTIAL
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APPENDIX A-6

ABSTRACT OF THE THIRD FIVE-YEAR PLAN PROJECTS
(1980-1985)

Sr. No.	Project	Cost as per 1978 prices (S.R.) in million
1.	PROJECTS OF THE MINISTRY OF MUNICIPAL AND RURAL AFFAIRS:	
1.1	<u>MEDINA MUNICIPALITY PROJECTS</u>	
1.1.1	<u>Extension of Al-Haram</u>	
	- Planning studies to be undertaken by Medina Planning and Development Department.	
1.1.2	<u>Proposed Modifications in the Secondary Road layout and the City's Gateway</u>	
1.1.2.1	Property Expropriation projects left over from the Second Five-year Plan.	
	- Completion of the First Circular Ring Road.	370
	- City's Gateway from the East side.	76
	- City's Gateway from the West side.	217
	- Extension of King Abdel Aziz Street upto the Second Ring Road.	458
	- Extension of Abu Zar Street upto the Second Ring Road.	226
	- Extension of Al-Seheimy street upto the First Ring Road.	20
	- Amendment in Bab Al-Shamy square	23

ABSTRACT OF THE THIRD FIVE YEAR PLAN PROJECTS
(1980-1985)

Sr. No.	Project	Cost as per 1978 Prices (S.R.) in million
	- Completion of Al-Oyoun Street upto Sultana Road.	50
	- Car Parking Places in various parts of the city.	60
	TOTAL:	1,500
1.1.2.2	Proposed Property Expropriation Projects in the Third Five-year Plan:	
	- Completion of the Second Circular Ring Road (12 Kms. long).	
	- Turning the Green Belt Road into a dual carriageway from the Airport to Quba Mosque	
	- The Link Roads between the approved sub-division schemes and the principal roads in the Western Harra, Awali and other places.	
	- Site allocation for car parking areas in various parts of the city.	
	- Public Recreation Parks in Quba, Sayed Al-Shuhada and Al-Oqoul Districts.	
	TOTAL:	3,000
1.1.2.3	Study of Implementing a Pedestrian Sub-way in Manakha Street.	

ABSTRACT OF THE THIRD FIVE YEAR PLAN PROJECTS
(1980-1985)

Sr. No.	Project	Cost as per 1978 Prices (S.R.) in million
.1.2.4	Implementation of pavement, asphaltting and lights for the former projects such as the First Circular Ring Road, the road leading to it and the Second Circular Ring Road etc.	300
.1.2.5	Pavement, lights and asphaltting of the streets in the approved sub-divisions and the main roads	800
.1.2.6	Temporary asphaltting of the streets affected by public utility projects.	400
.1.3	<u>Execution of the Second Stage of the Storm-Water Drainage Projects (8 So.Kms.)</u>	640
.1.4	<u>Al-Medina Municipality Building</u>	50
.1.5	<u>Buildings for the Municipality Branch Offices</u>	30
.1.6	<u>Execution of the Second, Third & Fourth Stages of the Beautification and Improvement of the City Streets.</u>	500
.1.7	<u>Coding and Naming of the Streets</u>	
.1.8	<u>Installation of Street Lights</u>	70
.1.9	<u>Collection and Disposal of Refuse and Waste (Refer to Appendices C & D)</u>	175
.1.1.10	<u>Public Lavatories (43 units)</u>	29
.1.1.11	<u>Establishment of a Testing Laboratory for the Public Health Purposes.</u>	10

ABSTRACT OF THE THIRD FIVE YEAR PLAN PROJECTS
(1980-1985)

Sr. No.	Projects	Cost as per 1978 Prices (S.R.) in million
1.1.12	<u>Health Education</u>	3
1.1.13	<u>Public Parks near the Treatment Plant</u>	142
1.1.14	<u>Study of Establishing Public Parks in Quba, Sayed Al-Shuhada and Okuol</u>	5
1.1.15	<u>Fencing and Management of Public Gardens</u>	70
1.1.16	<u>Public Buildings for Cultural and Recreational Activities</u>	70
1.1.17	<u>Operation and Extension of the Automatic Slaughter House</u>	5
1.1.18	<u>Compound Walls for Grave-yards</u>	50
1.1.19	<u>Filling-in the Extension of Al-Baqeih</u>	7
1.1.20	<u>Construction of Mortauries</u>	10
	MUNICIPALITY PROJECTS TOTAL:	6,366
1.2	<u>SEWERAGE AND WATER AUTHORITY</u>	
1.2.1	<u>Expansion of Water-supply network in the Suburbs (140 kms. of Piping.</u>	266
1.2.2	<u>Expansion of Sewer Network (260 kms. of piping)</u>	800
1.2.3	<u>Expansion of the Sewage Treatment Plant</u>	40
	TOTAL:	1,106

ABSTRACT OF THE THIRD FIVE YEAR PLAN PROJECTS
(1980-1985)

Sr. No.	Project	Cost as per 1978 Prices (S.R.) in million
1	GENERAL PRESIDENCY OF AL-HARAMEEN	
1	<u>STUDY OF THE ARCHITECTURAL DESIGN AND IMPLEMENTATION OF AL-HARAM EXTENSION PROJECTS, SERVICES AND FOLLOW-UP</u>	
	PROJECTS OF THE MINISTRY OF COMMUNICATIONS	
1	<u>IMPLEMENTATION OF THE NON-MUSLIMS ROAD AS A DUAL CARRIAGE-WAY AND PART OF THE SECOND CIRCULAR RING ROAD (26 Kms)</u>	26
2	<u>COMPLETION OF THE THIRD CIRCULAR RING ROAD (9 Kms)</u>	
2.1	<u>Property Expropriation Costs</u>	20
2.2	<u>Asphalting and Street Lighting Costs</u>	70
	TOTAL COST OF THE MINISTRY OF COMMUNICATIONS PROJECTS	116
	PROJECTS OF THE MINISTRY OF ELECTRICITY:	
	- Expansion of power-supply net work and construction of 7 new transformers to be undertaken by the Medina Electricity Medina.	210
	PROJECTS OF THE MINISTRY OF AGRICULTURE AND WATERS	
1	<u>EXECUTION OF THE SECOND STAGE OF THE DESALINATION PROJECTS AT YANBU</u>	

ABSTRACT OF THE THIRD FIVE YEAR PLAN PROJECTS
(1980-1985)

Sr. No.	Project	Cost as per 1978 Prices (S.R.) in million
5.2	<u>DEVELOPMENT OF UNDERGROUND WATER RESOURCES</u>	
6.	PROJECTS OF THE MINISTRY OF POSTS TELEGRAM AND TELEPHONE:	
6.1	<u>ESTABLISHMENT OF SIX PUBLIC OFFICES FOR THE POST, TELEGRAM, TELEPHONE & TELEX SERVICES</u>	
6.2	<u>REINFORCEMENT OF THE TELEPHONE NETWORK WITH 70,000 LINES TO PROVIDE 22 LINES FOR EACH 100 PEOPLE</u>	
7.	THE PROJECTS OF THE MINISTRY OF EDUCATION & GIRLS EDUCATION PRESIDENCY*	
7.1	<u>CONSTRUCTION OF 116 PRIMARY SCHOOLS FOR BOYS AND GIRLS</u>	
7.2	<u>CONSTRUCTION OF 57 INTERMEDIATE SCHOOLS FOR BOYS AND GIRLS</u>	
7.3	<u>CONSTRUCTION OF 17 SECONDARY SCHOOLS FOR BOYS AND GIRLS</u>	
8.	PROJECTS OF THE MINISTRY OF HIGHER EDUCATION*.	
8.1	<u>EXTENSION OF THE ISLAMIC UNIVERSITY</u>	
8.2	<u>COMPLETION OF KING ABDEL AZIZ UNIVERSITY (AL-MEDINA)</u>	

**ABSTRACT OF THE THIRD FIVE YEAR PLAN PROJECTS
(1980-1985)**

Sr. No.	Projects	Cost as per 1978 Prices (S.R.) in million
9.	PROJECTS OF THE MINISTRY OF HEALTH	
9.1	<u>ESTABLISHMENT OF 3 NEW SPECIALI- SED HOSPITALS</u>	
9.2	<u>INCREASE OF THE NUMBER OF BEDS IN EXISTING HOSPITALS</u>	
9.3	<u>ESTABLISHMENT OF 134 CLINICS</u>	
9.4	<u>ESTABLISHMENT OF A HEALTH TECHNICAL INSTITUTES</u>	
10.	<u>ESTABLISHMENT OF HANDICRAFT INDUSTRIES</u> - This will be on a 85-hectare area in Abar Ali. An Indus- trial Intermediate Schools will be also established on this site to serve the objective of this industry.	

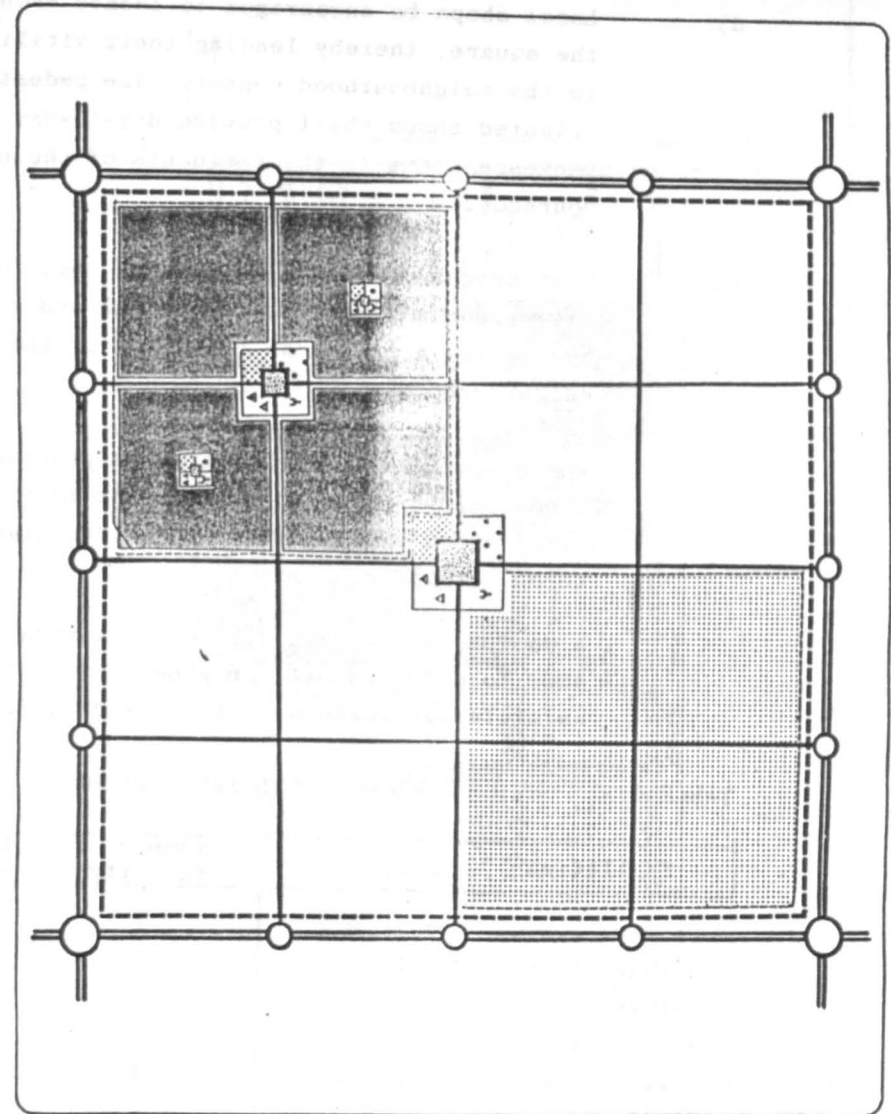
APPENDIX A-7

4.4.5 Hierarchical Order of Urban Units

The Plan has proposed to divide Medina Metropolitan Area into an hierarchical order of urban units i.e. neighbourhoods, communities and districts. Each urban units will have its own local centre and its size and magnitude will vary in accordance with the specific kind of functions and facilities it is intended to cater for the local population as described below. Fig.(26) shows the physical boundary of the urban units.

4.4.5.1 The Neighbourhood Unit

- a) Neighbourhood boundaries shall be determined by natural features, such as topography or terrain; by major streets; by artificial features; power lines; by other development obstructions; or by planning elements, such as recreational and other open space uses or community facilities.
- b) While the size of the neighbourhood is related to the density of the population, the elementary school service boundary remains the key determinant of physical size; all residents shall be within walking distance of the school.
- c) Sites for an elementary school and other institutional uses having service spheres coinciding with the boundary of the neighbourhood, shall be grouped around a central point or square.



LEGEND	
	NEIGHBOURHOOD UNIT
	THE COMMUNITY
	THE DISTRICT
	PARK-RECREATION
	SECONDARY ROADS
	TERTIARY ROADS
	COMMERCIAL
	SCHOOL
	MOSQUE
	SERVICES
	PRIMARY
	INTERMEDIATE
	SECONDARY

MASTER DIRECTIVE PLAN	
HIERARCHICAL ORDER OF URBAN UNITS	
Source	Date
CONSULTANT	BASAB 26
	1402M

d) Local shops be encouraged to locate around the square, thereby lending their vitality to the neighbourhood center. The pedestrian oriented shops shall provide day-to-day convenience items to the residents of the neighbourhood.

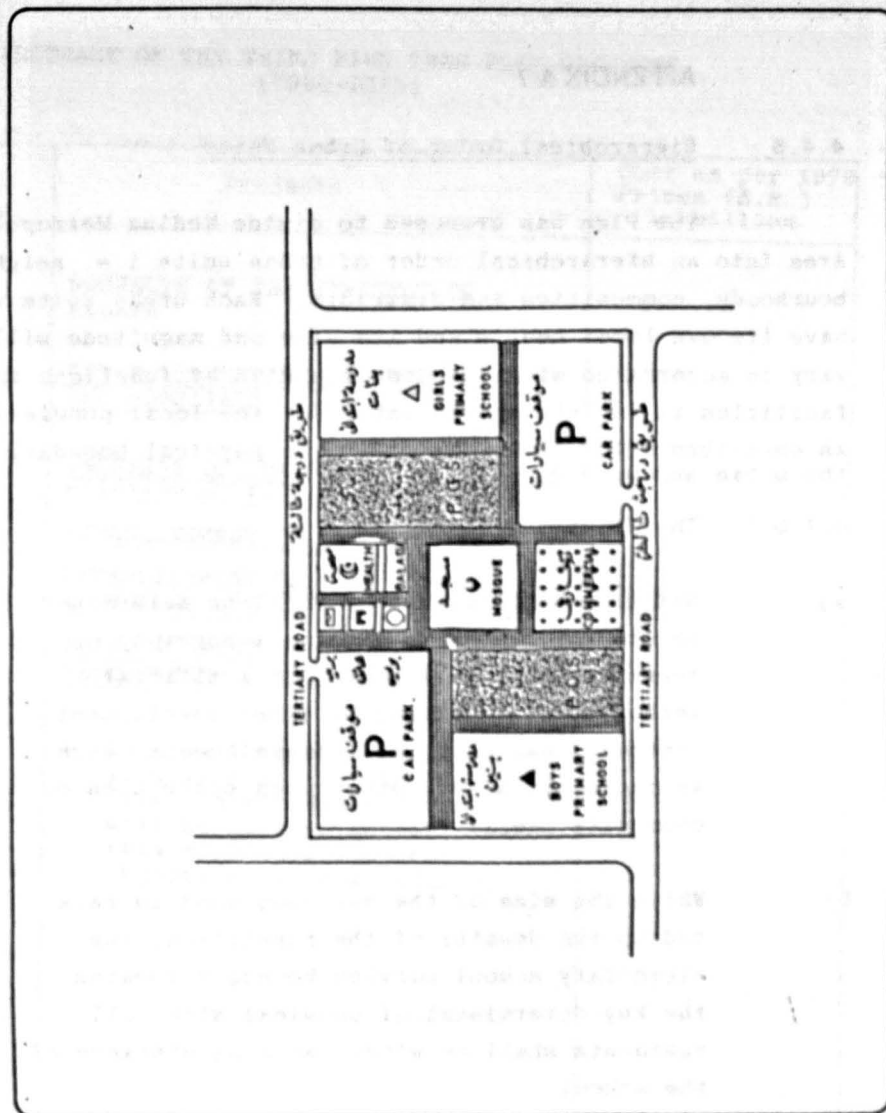
d) Each Neighbourhood shall have at least one playground adjacent to the school and a square containing a mosque as the focus of the neighbourhood.

f) The Neighbourhood units shall be provided with a special street network designed to facilitate circulation within this unit but to discourage through traffic.

A Neighbourhood Unit will serve a population of 4000 to 6000 and will provide various facilities as stated in Table 4.3 below and in Fig.(27).

TABLE 4.3 NEIGHBOURHOOD LEVEL FACILITIES

Facilities	Number of Facility	Area* in Hectare
Primary School for Boys	1	0.50
Primary School for Girls	1	0.50
Clinic	1	0.075
Maternity Clinic	1	0.090
Post Office	1	0.050
Police Station	1	0.10
Small Mosques	8	0.50
Jamia Mosque	1	0.50
Tot-lot	1	0.75
Playground	1	1.00
Park	1	0.75
Commercial Centre	1	0.30



LEGEND

MASTER DIRECTIVE PLAN
NEIGHBOURHOOD
CENTRE

Source: Date: File:
CONSULTANT: MARAM 27
(11.87.21)

4.4.5.2 The Community

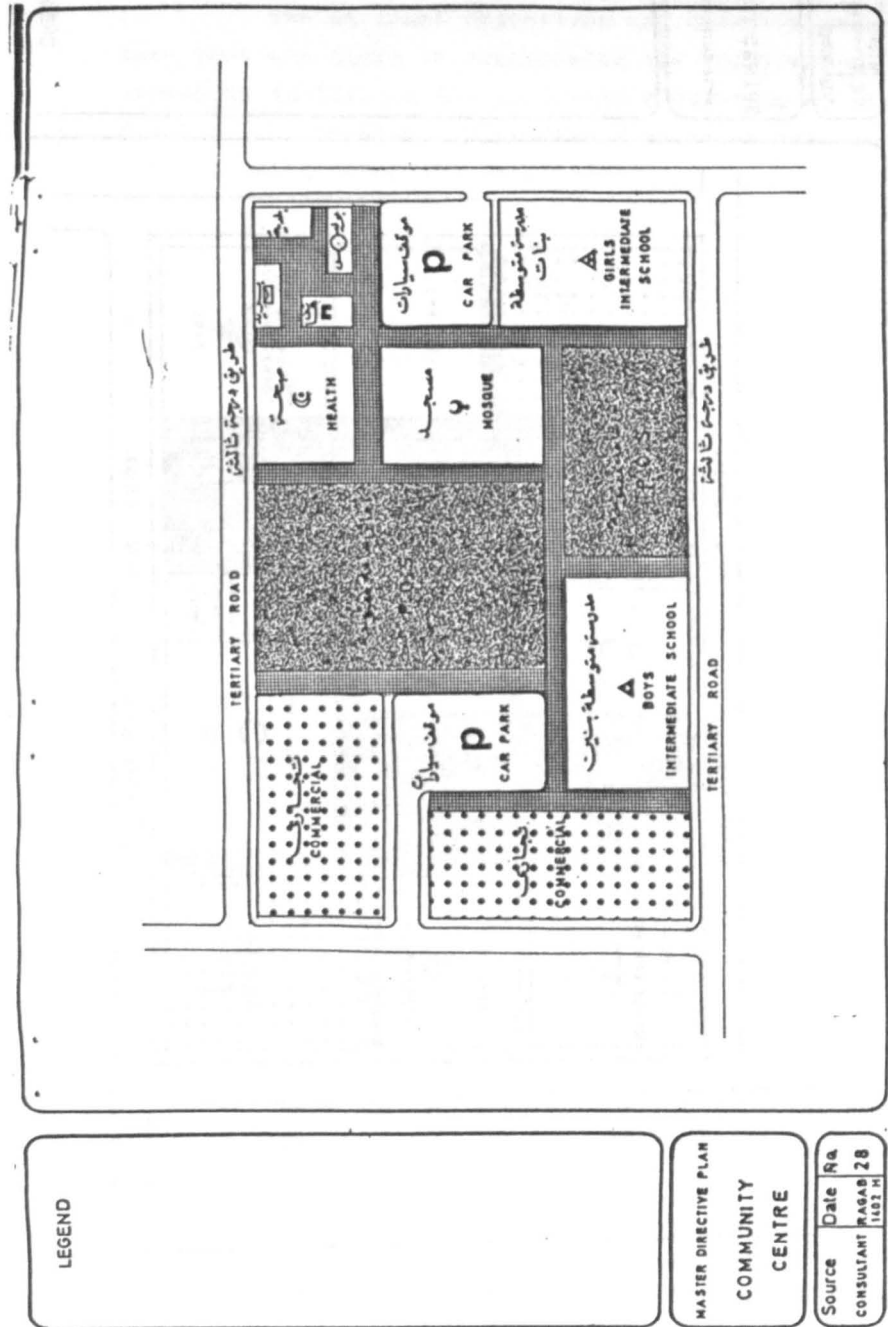
The next urban unit is the community (Fig. 28) comprised of a group of neighbourhoods. The community centre will serve a population between 20,000-30,000 and will support community facilities such as intermediate schools, park, Jamia Mosque and other facilities as stated in Table 4.4 below:

TABLE 4.4 COMMUNITY LEVEL FACILITIES

Facilities	Number of Facility	Area in Hectare
Intermediate School for Boys	1	0.50
Intermediate School for Girls	1	0.50
Dispensary	1	0.30
Post Office	1	0.10
Police Station	1	0.25
Park	1	6.00
Commercial	-	2.00
Jamia Mosque	1	0.75
Total Area		10.40

4.4.5.3 District Centre

The largest urban unit is the District Centre (Fig. 29). A higher order of services and functions shall be concentrated in the centre. A District Centre will serve a population of 60,000 to 80,000 and will be supported by various community facilities as stated in the following Table 4.5.



LEGEND

MASTER DIRECTIVE PLAN

COMMUNITY CENTRE

Source Date Ra
CONSULTANT RAGAB/28
1107 H

LEGEND

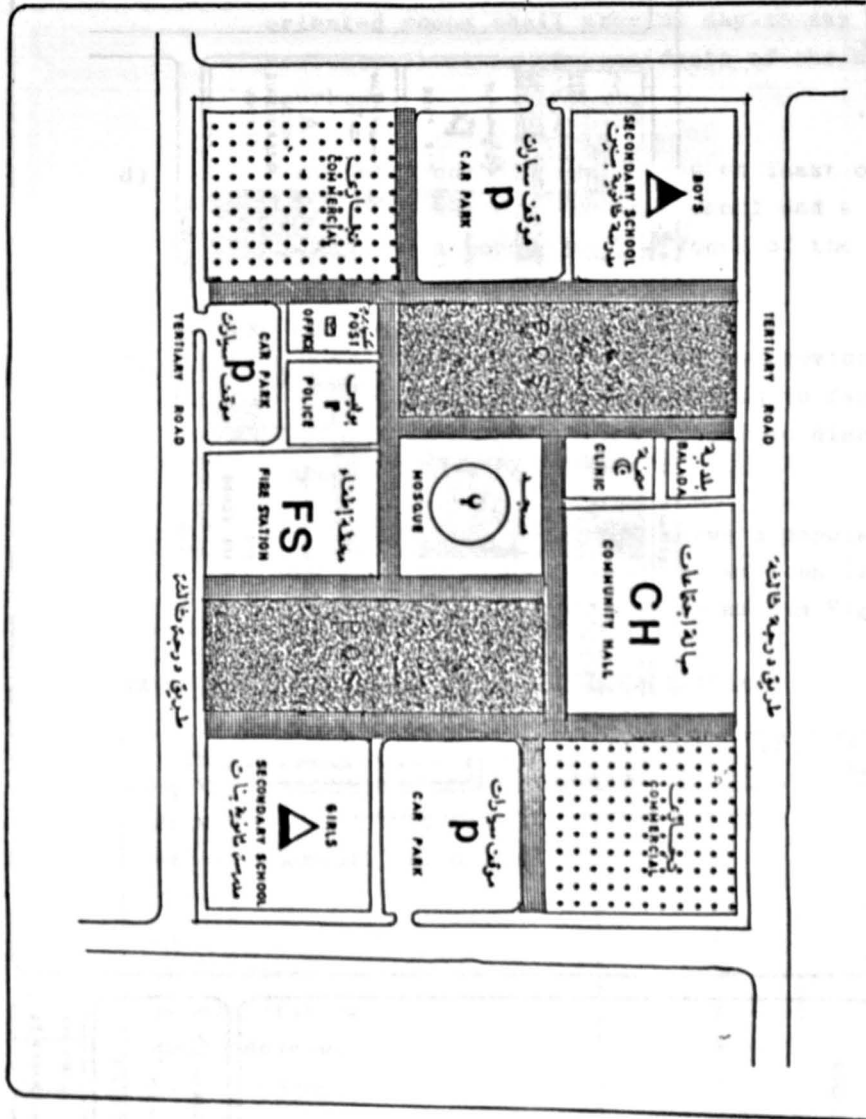


TABLE 4.5 DISTRICT LEVEL FACILITIES

Facilities	Number of Facility	Area in Hectare
Secondary School for Boys	1	1.00
Secondary School for Girls	1	1.00
Fire Station	1	0.50
Commercial	-	3.75
Mosque	1	0.75
Park	1	3.00
Marriage Centre (Hall)	1	2.00
Police Station (Higher order)	1	0.30
Post, Telephone, Telegraph and Telex Offices	1	0.30
Health Centre	1	0.40
Total Area		13.00

As shown in Table 4.6 below there will be 142 Neighbourhood Centres, 54 Community Centres and 10 District Centres covering a total area of 1418 hectares by the end of Plan period in 1415 H.

TABLE 4.6 URBAN UNITS

Type of Urban Centre	1405 H.		1410 H.		1415 H.	
	No.	Area (Ha.)	No.	Area (Ha.)	No.	Area (Ha.)
Neighbourhood Centre	85	435	110	562	142	726
Community Centre	31	322	42	437	54	562
District Centre	6	78	8	104	10	130
Total Area		835		1103		1418

1.4.5.4 Metropolitan Area Boundary

The curvilinear profile of the "Metropolitan Boundary" has been mainly determined by the surrounding wadis, agricultural land in the north and south of the city and rather remote location of sites for a proposed railway station on Tabuk Road, an Industrial Estate and an Industrial City in the south-west of the city. These land uses tend to generate extensive employment and travel pattern hence their inclusion in the "Metropolitan Area Boundary" is essential.

Total land mass within the Metropolitan Area Boundary is approximately 85,000 hectares out of which only 25,486 hectares will be developed for different uses including agriculture during the Plan period up to the end of 1415 H. Undevelopable area such as wadis, mountains and harras amounts to 13,530 hectares. There is another 3,822 hectares of potential developable lands under the ownership of defence and national guards in the city. The Plan has only incorporated the approved land subdivisions and rest of the land has been designated as Defence Land. The remaining 42,162 hectares of developable land within the Metropolitan Area has been designated as "Controlled Area" which will be available for development after the Plan period in 1415 H. However, interim uses of the Controlled Area could be made for various purposes e.g. race courses, golf clubs, agricultural and pasture.

The Master Directive Plan strongly recommends that the "Metropolitan Area Boundary" should be considered as an ultimate area of expansion in future. All the land within this boundary should be subject to regulatory control from immediate effect in order to establish a status quo of all the existing as well as proposed land uses. Failure to do so would inevitably result in haphazard development and hence jeopardise the objectives of the Plan.

The national objectives and planning standards have been the basis in determining the requirements of community facilities for projected population of Al-Medina (1415 H.). The Master Directive Plan takes into account the following community facilities:

- Religious facilities.
- Education facilities.
- Health facilities.
- Governmental facilities.

The number of these facilities has been calculated for the years 1405 H., 1410 H. and 1415 H.

4.5.1 Religious Facilities

The Deputy Ministry of Town Planning has stipulated that prayer facilities should be provided at three levels as follows:

- Local Mosques.
- Juma Mosques.
- Eid Mousallas.

However, in Al-Medina the Eid prayers are held in Al-Haram and Quba Mosques, therefore Eid Mousallas have not been considered for provision in the Master Directive Plan.

The objective of the Plan is to ensure that there is sufficient number of mosques for the resident population and these are conveniently accessible to the prayerers at prayer times.

The standards used for the purpose of determining the number and area of mosques are given in the following table.

TABLE 4.7 STANDARDS FOR MOSQUES

Category of Mosque	Population Served	Land Area
Local Mosque	1,000-1,500	600 m ²
Juma Mosque	10,000-30,000	1500 m ²

Thus the total number of mosques needed for Al-Medina Metropolitan Area for the projected population of 1405 H., 1410 H. and 1415 H. are given in the following table.

TABLE 4.8 FUTURE NEEDS OF MOSQUES

Category	1405 H.	1410 H.	1415 H.
Local Mosques	300	400	500
Juma Mosques	23	30	39

4.5.2 Education Facilities

The Third Five-year Plan policies and objectives, the existing enrolment and the projected number of school-age children were considered to determine the number of schools of various categories required for the projected population of 1405 H., 1410 H. and 1415 H. Five types of educational institutions were taken into consideration for the purposes of this Plan i.e. Elementary Schools, Intermediate Schools, Secondary Schools, Technical Schools and Teachers' Training Colleges. The higher education facilities and university education was not taken into account because the planned expansion of the Islamic University and proposed up-gration of the Education College which is already affiliated to the King Abdel Aziz University, Jeddah will meet the future requirements of higher education, for which sufficiently large areas have been assigned.

Table 4.9 gives the required number of units of

TABLE 4.9 ESTIMATED NUMBER OF SCHOOLS

Type of Schools (age)	1405 H.	1410 H.	1415 H.
Elementary Schools (6-11)			
Boys	85	117	158
Girls	91	125	167
Total	176	242	325
Intermediate Schools(12-14)			
Boys	26	39	57
Girls	27	41	60
Total	53	80	117
Secondary Schools (15-17)			
Boys	10	13	19
Girls	11	14	20
Total	21	27	39

4.5.3 Health Facilities

Ministry of Health formulates policies for the development of health facilities throughout the Kingdom. The private sector is being encouraged to participate in the expansion of health facilities. The overall national objective is to provide a variety of easily accessible health services to meet the needs of the population. The Third Five-year Plan has provided guidelines for a well-structured hierarchical system of Health Centres. These have been adopted alongwith the planning standards for determining the various categories of health care units for the years 1405 H. 1410 H. and 1415 H.

The Health Services range from small local clinics to general and specialized hospitals. The Health Service Units required for three phases of the Master Directive Plan period are given in Table 4.10.

TABLE 4.10 HEALTH FACILITIES* - FUTURE NEEDS

Type of Facilities	Facility/ Beds	1405 H.	1410 H.	1415 H.
Grade 1 Health Centre	Facilities	80	120	156
Grade 2 Health Centre	Facilities	40	60	78
Grade 3 Health Centre	Facilities/ Beds	20	30	39
Grade 4 Health Centre	Facilities/ Beds	5	8	10
Mother and Child-Care Centre	Facilities/ Beds	27	40	52
Mental Hospital	Facilities/ Beds	2	3	4
Obstetrical Hospital	Facilities/ Beds	2	3	4
Total No. of Beds required @ 4 beds per 1000 population.		1800	2400	3120

*Source: Third Five-year Plan.

4.5.4 Governmental Facilities

The governmental facilities considered for the purposes of Master Directive Plans can be categorised as:

- a) Communications.
- b) Public Security.
- c) Fire Protection.
- d) Community Facilities.

Each type of facility has been sub-divided into sub-categories based on the nature of service area and population served, i.e. neighbourhoods and communities etc. The provision of these services on neighbourhood and community levels follows the national policies and the Third Five-year Plan, coupled with the standards which emphasize sufficient and efficient services available to the residents of each urban unit.

The estimated number of each type of facility, based on planning standards and population projections for 1405 H., 1410 H. and 1415 H. are given in the following table

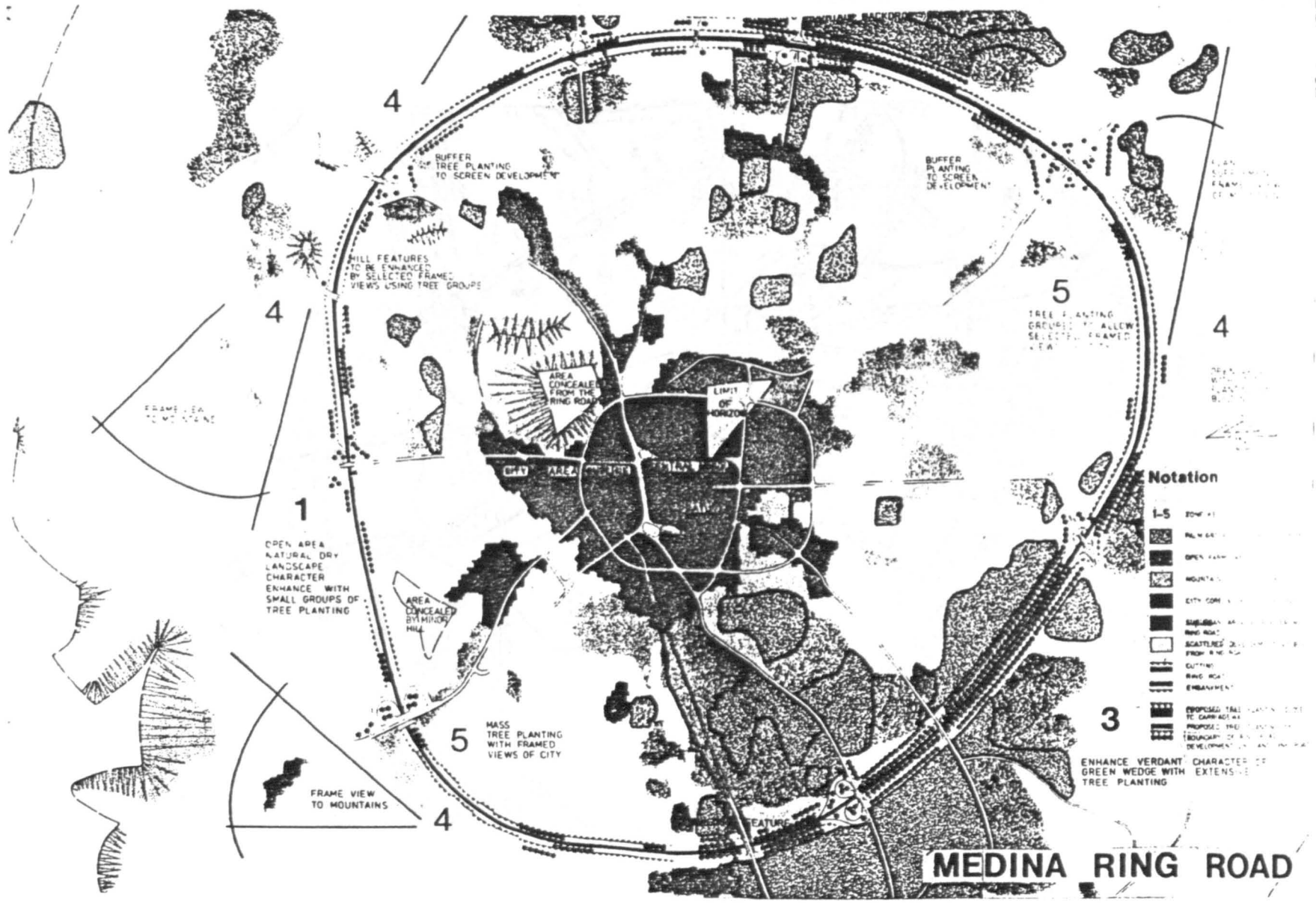
TABLE 4.11 FUTURE NEEDS OF GOVERNMENTAL FACILITIES

Type of Facility	1405 H.	1410 H.	1415 H.
Neighbourhood Post Offices	85	110	142
Community Post Offices	31	42	54
District level Post Offices	6	8	10
Neighbourhood Police Station	85	110	142
Community Police Station	31	42	54
District Police Station	6	8	10
District level Fire Station	6	8	10

APPENDIX A-8

- MEDINA SECOND RING ROAD PLAN (1978)
- MEDINA SECOND RING ROAD PLAN (1990)
- THE PLAN OF HIJJRAH ROAD

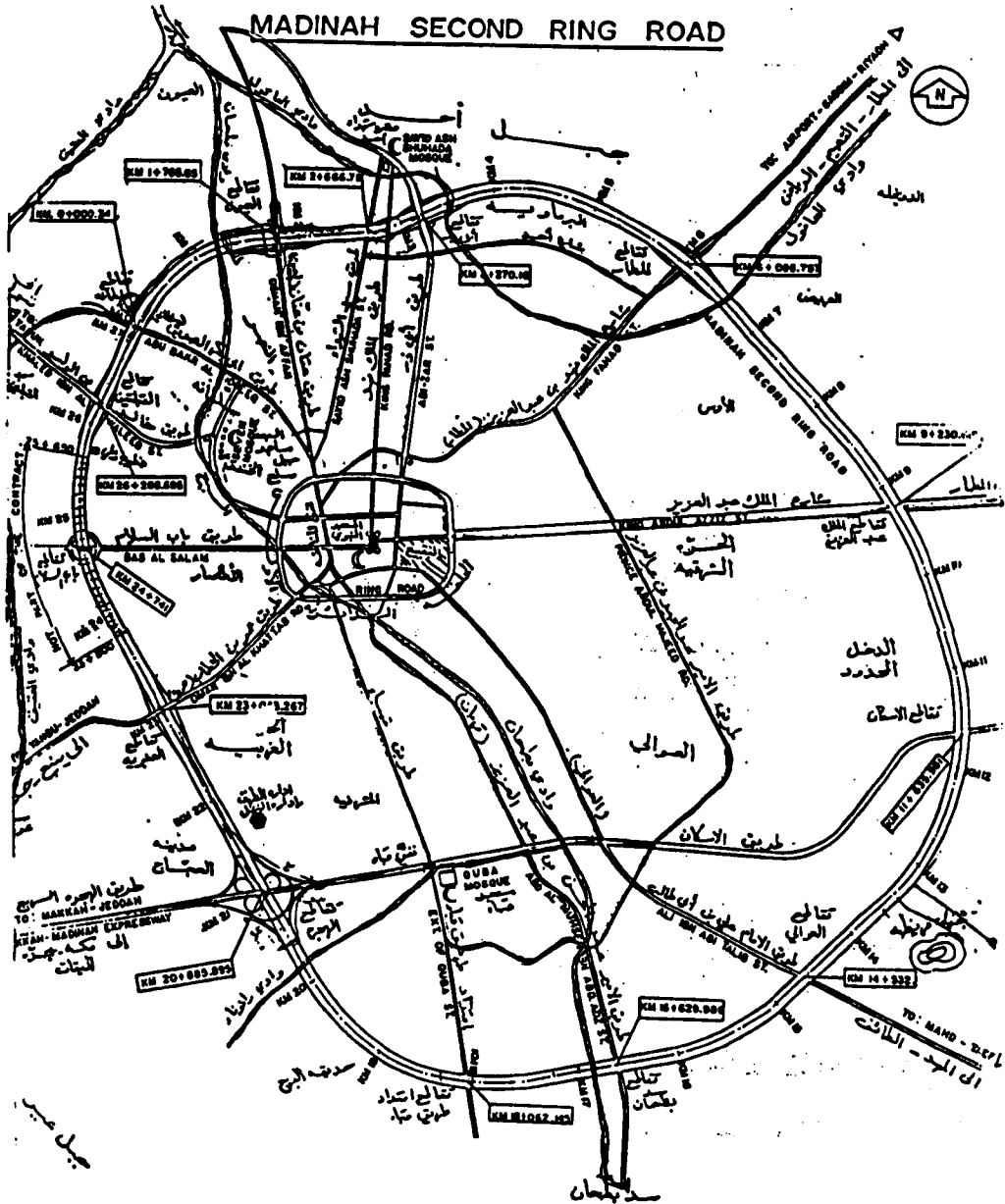
MEDINA RING ROAD



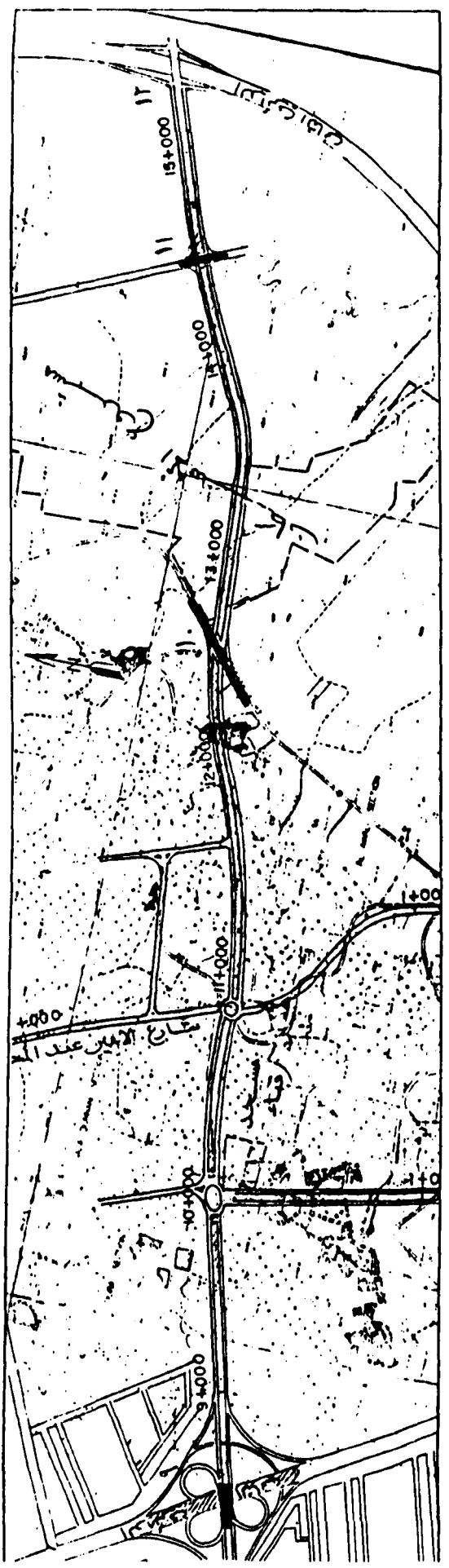
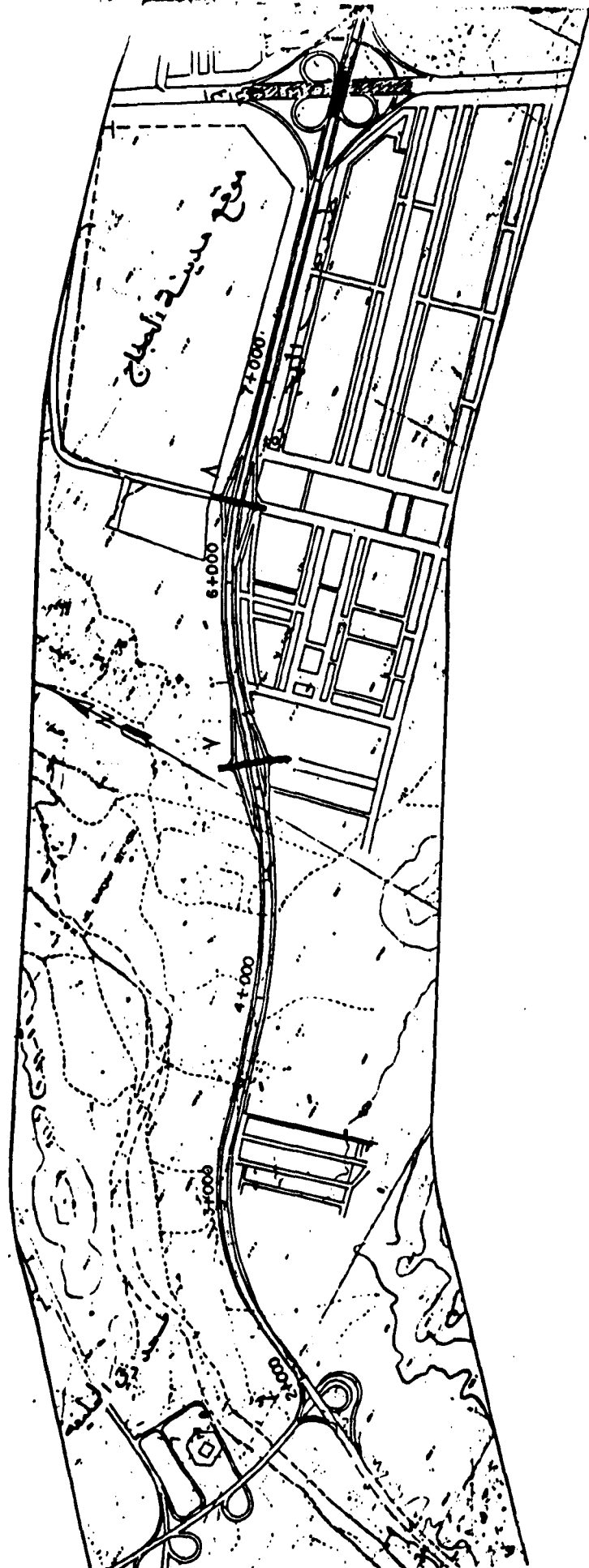
Notation

1-5	ZONE #1
[Symbol]	PAVEMENT
[Symbol]	OPEN AREA
[Symbol]	MOUNTAIN
[Symbol]	CITY CORNER
[Symbol]	SHULDER AREA
[Symbol]	RING ROAD
[Symbol]	SCATTERED DEVELOPMENT
[Symbol]	FROM RING ROAD
[Symbol]	CUTTING
[Symbol]	RAVE ROAD
[Symbol]	EMBANKMENT
[Symbol]	PROPOSED TREE PLANTING
[Symbol]	PROPOSED TREE PLANTING
[Symbol]	BOUNDARY OF AREA FOR DEVELOPMENT

(SOURCE : MMRA, MEDINA RING ROAD, DESIGN REPORT BY PPARSONS BROWN INTERNATIONAL CORPORATION, 1978)



(SOURCE : MINISTRY OF COMMUNICATION, MEDINA ROAD DIRECTORATE, MEDINA SECOND RING ROAD, 1990)



THE PLAN OF HIJJRAH ROAD
(SOURCE: MEDINA MUNICIPALITY)

APPENDIX B-1

THE INTERVIEWEES WERE TARGETED FOR THE PURPOSE OF THE PRESENT STUDY

Mainly the interviewees can be categorized into two types; firstly the officials within the municipality of Medina ,and secondly the interviewees from other governmental agencies'officials:

A. Interviewees within Medina municipality:

A-1 The Mayor

- A-1.1 A consultant in the mayor's office
- A-1.2 The director of the programmes and planning deptment.,and his assistant.
- A-1.3 The director of legal affairs deptment.

A-2 The Deputy municipality for technical affairs.

- A-2.1 The director of design and study directorate.
- A-2.2 The director of general planning directorate.
 - A-2.2.1 The director of building permitt department.
 - A-2.2.2 The director of local plannig department.
- A-2.3 The director of survey directorate.
- A-2.4 The director of the Medina Devlopmental Project Committee.

A-3 The General director for land and properties.

- A-3.1 The director of land directorate.
- A-3.2 The director of properteis.

A-5 The director of budget directorate.

B. Interviewees from the other governmental agencies:

B-1 The director of studies and research directorate in the MMRA deputy for town planning.

B-2 The general director of Medina Roads Directorate.

B-3 The general director of Medina Educational Directorate.

B-4 The director of mosques department and director of engineering department in the Medina Endowment and Pilgrimage Directorate.

B-5 The director of engineering deptment in the Medina Water and Sewrage Directorate.

B-6 Two officials from the Saudi Telephone company.

B-7 The director of the regional planning department in the Ministry of Planning.

APPENDIX B-2

CODING AND CODES

TARGETED SUBJECT	CODES	CODE NO.
URBAN PLANNING SYS. IN SAUDI ARABIA AND MEDINA.	UPSA	1.00
UPSA: RELATION WITH OTHER SYSTEMS	UPSA,REL.	1.1
UPSA: EVALUATION.	UPSA,EVO.	1.2
UPSA: ADMINSTRATIVE STRUCTURE AND HIERARCHY.	UPSA,ADM.	1.3
UPSA: PLANNING PROCESS.	UPSA,PP	1.4
UPSA: HIERARCHY OF PLANS	UPSA,HP	1.5
UPSA: LAWS AND REGULATIONS RELATED	UPSA,LR	1.6
MASTER DIRECTIVE PLAN MEDINA	MDPM	2.00
MDPM: CONCEPT OF MASTER PLAN IN SAUDI ARABIA.	MDPM,CON.	2.1
MDPM: MASTER PLAN IN MEDINA.	MDPM,MP.	2.2
MDPM: MASTER DIRECTIVE PLAN: CONCEPT. CONTENT.	MDPM,MDP/CONC AND CONT.	2.3 2.3.1 2.3.2
MDPM: POSITION OF MDP WITHIN URBAN PLANS AND POLICIES.	MDPM,POS	2.4
MDPM: RECENT CONDITION OF MDP IN THE PLANNING PROCESS IN MEDINA.	MDPM,REC	2.5
EFFECTIVENESS OF MDP IMPLEMENTATION	EMI	3.00
EMI: ACTORS IN THE IMPLEMENTATION.	EMI,ACTORS	3.1
EMI: EXTENT OF CMMITTMENT WITH PROPOSED PHASING BY THE MDP.	EMI,PHASE	3.2
EMI: EXTENT OF CMMITTMENT WITH LAND USE ALLOCATION PROPOSED BY MDP.	EMI,LANDUSE	3.3
EMI: EXTENT OF COMMITMENT WITH TRAFFIC NETWORK PROPOSED BY MDP.	EMI,TRAFFIC	3.4

FACTORS INFLUENCED IMPLEMENTATION	FII	4.00
FII: NATURE OF MDP.	FII,NAT	4.1
FII: ORGNIZATIONAL AND AMINSTRSTIVE ASPECTS:	FII,ORG	4.2
* ADMINSTRATIVE STRUCTURE OF FUNCTIONS.	FII,ORG/STRUCT	4.2.1
* CENTRALIZATION AND DECENTRALIZATION.	FII,ORG/CENTRA	4.2.2
* INFORMATION MANAGEMENT.	FII,ORG/INFO	4.2.3
* SKILLS OF MANPOWER	FII,ORG/SKILL	4.2.4
* FINANCIAL RESOURCES AND MANAGEMENT.	FII,ORG/FINAN	4.2.5
* CORDINATION.	FII,ORG/CORDIN	4.2.6
FII: LAND MARKET:	FII,LMARKET	4.3
* PRIVATE INVOLVEMENT.	FII,LMARKET/PRIV	4.3.1
* PUBLIC INVOLVEMENT	FII,LMARKET/PUB	4.3.2
* ROLE OF PLANNING SYSTEM.	FII,LMARKET/PLAN.SYS.	4.3.3
FII: PLANNING CONTROL AND PROJECTS:	FII,CONTROLPRO	4.4
* ZONING, LAND SUBDIVISION REGULATION, OFFICIAL MAP AND OTHER PLANNING LAWS AND LAND POLICIES.	FII,CONTROLPRO/ZON	4.4.1
* PUBLIC PROJECTS.	FII,CONTROLPRO/PROJECT	4,4,2
FII: CONTEXT	FII,CONTEXT	4.5